

Access DB# E396**SEARCH REQUEST FORM**

Scientific and Technical Information Center

Requester's Full Name: Letsher Examiner #: \_\_\_\_\_ Date: 6/28/06  
 Art Unit: \_\_\_\_\_ Phone Number 30 \_\_\_\_\_ Serial Number: 12/67,939  
 Mail Box and Bldg/Room Location: \_\_\_\_\_ Results Format Preferred (circle): PAPER DISK E-MAIL

**If more than one search is submitted, please prioritize searches in order of need.**

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Silver Halide photographic Light - - -

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

\*\*\*\*\*  
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Searcher: <u>ROS</u>	Type of Search	Vendors and cost where applicable
Searcher Phone #: _____	NA Sequence (#) _____	STN <u>✓</u>
Searcher Location: _____	AA Sequence (#) _____	Dialog _____
Date Searcher Picked Up: _____	Structure (#) <u>1</u>	Questel/Orbit _____
Date Completed: <u>6/28/06</u>	Bibliographic _____	Dr. Link _____
Searcher Prep & Review Time: <u>30</u>	Litigation _____	Lexis/Nexis _____
Clerical Prep Time: _____	Fulltext _____	Sequence Systems _____
Online Time: <u>80</u>	Patent Family _____	WWW/Internet _____
	Other _____	Other (specify) _____



# **STIC Search Report**

## **EIC 1700**

**STIC Database Tracking Number: 193996**

**TO: Geraldine Letscher**

**Location: REM 9D55**

**Art Unit : 1752**

**June 28, 2006**

**Case Serial Number: 10/671939**

**From: Ross Shipe**

**Location: EIC 1700**

**REMSSEN 4B31**

**Phone: 571/272-6018**

**Ross.Shipe@uspto.gov**

### **Search Notes**

Examiner Letscher:

Please review the attached search results.

If you have any questions or if you would like to refine the search query, please feel free to contact me at any time.

Thanks you for using EIC 1700 search services!

Ross Shipe (ASRC)

Technical Information Specialist



**Banks, Kendra**

193996

**From:** GERALDINE LETSCHER [geraldine.letscher@uspto.gov]  
**Sent:** Monday, June 26, 2006 3:25 PM  
**To:** STIC-EIC1700  
**Subject:** Database Search Request, Serial Number: 10/671,939

**Requester:**  
GERALDINE LETSCHER (P/1752)  
**Art Unit:**  
GROUP ART UNIT 1752  
**Employee Number:**  
70775  
**Office Location:**  
REM 09D55  
**Phone Number:**  
(571) 272-1334  
**Mailbox Number:**  
2-1334

SCIENTIFIC REFERENCE BR  
Sci & Tech Inf. Cntr

JUN 27 REC'D

Pat. & T.M. Office

**Case serial number:**  
10/671,939  
**Class / Subclass(es):**  
430/570,576,577,581-585, 502,503  
**Earliest Priority Filing Date:**  
09/30/2002  
**Format preferred for results:**  
Paper  
**Search Topic Information:**  
1. spectral sensitizing dye of formula (I)  
  
2. silver halide photographic light-sensitive material containing: (a) the spectral sensitizing dye of formula (I)  
  
3. silver halide photographic light-sensitive material containing: (a) the spectral sensitizing dye of formula (I); (b) at least one hydrazine derivative; (c) a benzotriazole compound  
**Special Instructions and Other Comments:**  
ASAP...As per SPE's request  
Cynthia Kelly 2-1256



## UNITED STATES PATENT AND TRADEMARK OFFICE

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Bib Data Sheet

CONFIRMATION NO. 8304

SERIAL NUMBER 10/671,939	FILING DATE 09/29/2003  RULE	CLASS 430	GROUP ART UNIT 1752	ATTORNEY DOCKET NO. 2870-0267P
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APPLICANTS

Mitsunori Hirano, Minami-ashigara-shi, JAPAN;  
 Kunio Ishigaki, Minami-ashigara-shi, JAPAN;  
 Tokuju Oikawa, Minami-ashigara-shi, JAPAN;

\*\* CONTINUING DATA \*\*\*\*\*

\*\* FOREIGN APPLICATIONS \*\*\*\*\*  
 JAPAN 2002-287243 09/30/2002

IF REQUIRED, FOREIGN FILING LICENSE GRANTED  
 \*\* 12/16/2003

Foreign Priority claimed 35 USC 119 (a-d) conditions met Verified and Acknowledged	<input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input checked="" type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> Met after Allowance Examiner's Signature _____ Initials _____	STATE OR COUNTRY JAPAN	SHEETS DRAWING 0	TOTAL CLAIMS 20	INDEPENDENT CLAIMS 2
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ADDRESS  
 02292  
 BIRCH STEWART KOLASCH & BIRCH  
 PO BOX 747  
 FALLS CHURCH, VA  
 22040-0747

TITLE  
 Silver halide photographic light-sensitive material

FILING FEE  RECEIVED 880	FEES: Authority has been given in Paper No. _____ to charge/credit DEPOSIT ACCOUNT No. _____ for following:	<input type="checkbox"/> All Fees <input type="checkbox"/> 1.16 Fees ( Filing ) <input type="checkbox"/> 1.17 Fees ( Processing Ext. of time ) <input type="checkbox"/> 1.18 Fees ( Issue )
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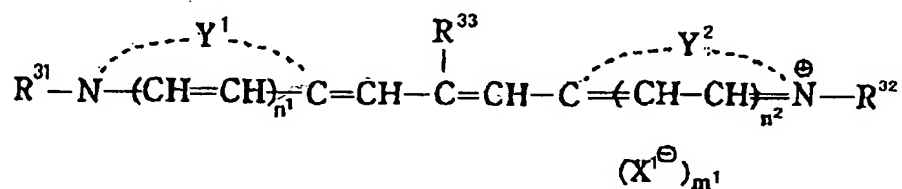
#### ABSTRACT OF THE DISCLOSURE

Disclosed is a silver halide photographic light-sensitive material wherein a silver halide emulsion layer and/or a hydrophilic colloid layer contains at least one  
5 hydrazine derivative, and a silver halide emulsion is spectrally sensitized with a particular dye, and which contains a benzotriazol compound. There is provided a silver halide photographic light-sensitive material that exhibits superior residual color property and can provide stable photographic  
10 performance even after a long term running with a reduced silver amount.

WHAT IS CLAIMED IS:

1. A silver halide photographic light-sensitive material comprising at least one silver halide emulsion layer and at least one hydrophilic colloid layer on a support, wherein the silver halide emulsion layer and/or the hydrophilic colloid layer contains at least one hydrazine derivative, a silver halide emulsion in the silver halide photographic light-sensitive material is spectrally sensitized with at least one dye selected from dyes represented by any one of the following formulas (I) to (IV), and further the silver halide photographic light-sensitive material contains a benzotriazol compound:

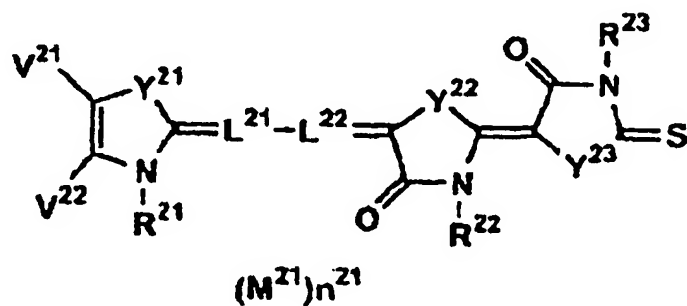
Formula I



wherein, in the formula (I),  $\text{Y}^1$  and  $\text{Y}^2$  each independently represent a nonmetallic atom group required to form benzothiazole ring, benzoselenazole ring, naphthothiazole ring, naphthoselenazole ring or quinoline ring, where these heterocyclic rings may be substituted with a lower alkyl group, an alkoxyl group, an aryl group, hydroxyl group, an alkoxy carbonyl group or a halogen atom,  $\text{R}^{31}$  and  $\text{R}^{32}$  each independently represent a lower alkyl group or an alkyl group having sulfo group or carboxyl group,  $\text{R}^{33}$  represents methyl group, ethyl group or propyl group,  $\text{X}^1$  represents an anion,  $n^1$  and  $n^2$  each independently represent 0 or 1,  $m^1$  represents 1 or 2, and  $m^1$  is 0 when an intramolecular salt is formed;

$$R^{41}-N-(L^{11}=L^{12})_1-C\equiv L^{13}-L^{14}-\overset{\overset{O}{\parallel}}{C}-\overset{\overset{Z^3}{\curvearrowright}}{C}=L^{15}-(L^{16}=L^{17})_n-C\equiv L^{18}-L^{19}\rightleftharpoons N^{\oplus}-R^{42} \quad X^{\ominus}$$

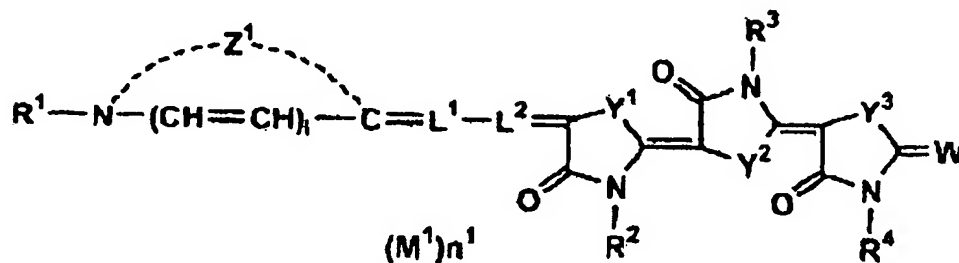
Formula III



wherein, in the formula (III),  $Y^{21}$ ,  $Y^{22}$  and  $Y^{23}$  each independently represent a  $-N(R^{24})$ -group, oxygen atom, sulfur atom or selenium atom,  $R^{21}$  represents an aliphatic group having 10 or less carbon

atoms and a water-solubilizing group,  $R^{22}$ ,  $R^{23}$  and  $R^{24}$  each independently represent an aliphatic group, an aryl group or a heterocyclic group, where at least two of  $R^{22}$ ,  $R^{23}$  and  $R^{24}$  have a water-solubilizing group,  $V^{21}$  and  $V^{22}$  each independently  
 5 represent hydrogen atom, an alkyl group, an alkoxyl group or an aryl group, or  $V^{21}$  and  $V^{22}$  bind together to represent a group forming a condensed ring with the azole ring,  $L^{21}$  and  $L^{22}$  each independently represent a substituted or unsubstituted methine group,  $M^{21}$  represents an ion required to offset the total  
 10 intramolecular charge, and  $n^{21}$  represents the number of ions required to offset the total intramolecular charge;

Formula IV



15 wherein, in the formula (IV),  $Y^1$ ,  $Y^2$  and  $Y^3$  each independently represent  $-N(R^5)-$ , oxygen atom, sulfur atom, selenium atom or tellurium atom,  $Z^1$  represents a nonmetallic atom group required to form a 5- or 6-membered nitrogen-containing heterocyclic  
 20 group, which may form a condensed ring,  $R^1$  represents an aliphatic group having 8 or less carbon atoms and a water-solubilizing group,  $R^2$ ,  $R^3$ ,  $R^4$  and  $R^5$  each independently represent an aliphatic group, an aryl group or a heterocyclic group, where at least two of  $R^2$ ,  $R^3$ ,  $R^4$  and  $R^5$  have a  
 25 water-solubilizing group,  $W$  represents oxygen atom, sulfur atom or  $=C(E^1)-(E^2)$  where  $E^1$  and  $E^2$  each independently represent an electron-withdrawing group, and  $E^1$  and  $E^2$  may bind together to



form a keto ring or an acidic heterocyclic ring,  $L^1$  and  $L^2$  each independently represent a substituted or unsubstituted methine group,  $l$  represents 0 or 1,  $M^1$  represents an ion required to offset the total intramolecular charge,  $n^1$  represents the number of ion required to offset the total intramolecular charge.

2. The silver halide photographic light-sensitive material according to claim 1, wherein the silver halide emulsion is spectrally sensitized with a dye represented by the formula (I).

3. The silver halide photographic light-sensitive material according to claim 1, wherein the silver halide emulsion is spectrally sensitized with a dye represented by the formula (II).

4. The silver halide photographic light-sensitive material according to claim 1, wherein the silver halide emulsion is spectrally sensitized with a dye represented by the formula (III).

5. The silver halide photographic light-sensitive material according to claim 1, wherein the silver halide emulsion is spectrally sensitized with a dye represented by the formula (IV).

6. The silver halide photographic light-sensitive material according to claim 1, wherein the dye for spectral sensitization can be dissolved in water at a concentration of 0.05 weight % or more.

7. The silver halide photographic light-sensitive material according to claim 1, wherein the addition amount of the dye for spectral sensitization is  $4 \times 10^{-6}$  to  $8 \times 10^{-3}$  mol per mol of silver halide.

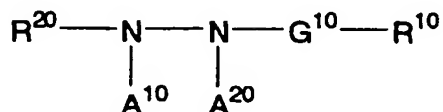
8. The silver halide photographic light-sensitive material according to claim 1, wherein the grain size of the silver halide is 0.2 to 1.3  $\mu\text{m}$  and the addition amount of the dye for spectral sensitization is  $2 \times 10^{-7}$  to  $3.5 \times 10^{-6}$  per  $\text{m}^2$

of the surface area of the silver halide grains.

9. The silver halide photographic light-sensitive material according to claim 1, wherein the hydrazine derivative is represented by the following formula (D):

5

Formula (D)



wherein  $\text{R}^{20}$  represents an aliphatic group, an aromatic group  
10 or a heterocyclic group,  $\text{R}^{10}$  represents hydrogen atom or a blocking group, and  $\text{G}^{10}$  represents  $-\text{CO}-$ ,  $-\text{COCO}-$ ,  $-\text{C}(=\text{S})-$ ,  $-\text{SO}_2-$ ,  $-\text{SO}-$ ,  $-\text{PO}(\text{R}^{30})-$  group or an iminomethylene group,  $\text{R}^{30}$  is selected from the same range of groups defined for  $\text{R}^{10}$ ,  $\text{R}^{30}$  may be different from  $\text{R}^{10}$ , and  $\text{A}^{10}$  and  $\text{A}^{20}$  both represent a hydrogen atom, or one  
15 of them represents a hydrogen atom and the other represents a substituted or unsubstituted alkylsulfonyl group, a substituted or unsubstituted arylsulfonyl group or a substituted or unsubstituted acyl group.

10. The silver halide photographic light-sensitive  
20 material according to claim 9, wherein  $\text{R}^{20}$  in the formula (D) represents a substituted phenyl group.

11. The silver halide photographic light-sensitive material according to claim 9, wherein the hydrazine derivative represented by the formula (D) have at least one substituent,  
25 directly or indirectly on  $\text{R}^{20}$  or  $\text{R}^{10}$ , selected from the group consisting of a ballast group, a group that can be absorbed on silver halide, a group containing quaternary ammonio group, a nitrogen-containing heterocyclic group containing a quaternized nitrogen atom, a group containing repeating units  
30 of ethyleneoxy group, an (alkyl, aryl or heterocyclyl)thio group, a dissociating group capable of dissociating in an

alkaline developer, and a hydrazino group capable of forming a multimer.

12. The silver halide photographic light-sensitive material according to claim 9, wherein  $G^{10}$  in the formula (D) is -CO- group, and  $R^{10}$  in the formula (D) is hydrogen atom, an alkyl group, an alkenyl group, an alkynyl group, an aryl group or a heterocyclic group.

13. The silver halide photographic light-sensitive material according to claim 9, wherein  $G^{10}$  in the formula (D) is -COCO- group, and  $R^{10}$  in the formula (D) is an alkoxy group, an aryloxy group or an amino group.

14. The silver halide photographic light-sensitive material according to claim 1, wherein the hydrazine derivative is contained in an amount of  $1.0 \times 10^{-4}$  mol/mol Ag or more.

15. 15. The silver halide photographic light-sensitive material according to claim 1, wherein the benzotriazol compound is contained in the silver halide emulsion layer.

16. The silver halide photographic light-sensitive material according to claim 1, wherein the benzotriazol compound is benzotriazole or 5-methylbenzotriazole.

17. The silver halide photographic light-sensitive material according to claim 1, wherein the benzotriazol compound is contained in an amount of  $1 \times 10^{-4}$  to  $1 \times 10^{-1}$  mol/mol of silver halide.

25. 18. The silver halide photographic light-sensitive material according to claim 1, wherein the benzotriazol compound is contained in an amount of  $1 \times 10^{-3}$  to  $7 \times 10^{-2}$  mol/mol of silver halide.

30. 19. The silver halide photographic light-sensitive material according to claim 1, which has a gelatin layer between the silver halide emulsion layer and the support.

20. The silver halide photographic light-sensitive material according to claim 1, wherein coated silver amount in

the silver halide photographic light-sensitive material is 3.0 g/m<sup>2</sup> or less.



# STIC Search Results Feedback Form

**EIC17000**

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader  
571/272-2505 REMSEN 4B28

## Voluntary Results Feedback Form

- I am an examiner in Workgroup:  Example: 1713  
➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

=> d his full

(FILE 'HOME' ENTERED AT 09:12:34 ON 28 JUN 2006)

FILE 'REGISTRY' ENTERED AT 09:12:52 ON 28 JUN 2006

L2 STRUCTURE  
L3 19 SEA SSS SAM L2  
L4 8048 SEA SSS FUL L2  
SAV L4 LET939/A

FILE 'HCAPLUS' ENTERED AT 09:17:15 ON 28 JUN 2006

L5 3552 SEA ABB=ON PLU=ON L4  
L6 84074 SEA ABB=ON PLU=ON SILVER (2A) (HALIDE# OR CHLOR? OR  
BROM? OR IODI? OR FLUOR?) OR AGX OR AGCL OR AGR OR AGI  
OR AG2F  
L7 92826 SEA ABB=ON PLU=ON ?HYDRAZINE?  
L8 21138 SEA ABB=ON PLU=ON ?BENZOTRIAZOLE?  
L9 2094 SEA ABB=ON PLU=ON L5 AND L6  
L10 77 SEA ABB=ON PLU=ON L5 AND L6 AND L7  
L11 7 SEA ABB=ON PLU=ON L5 AND L6 AND L7 AND L8  
L12 776 SEA ABB=ON PLU=ON L5 (L) L6  
L13 7 SEA ABB=ON PLU=ON L5 (L) L6 (L) L7  
L14 74 SEA ABB=ON PLU=ON L10 AND PHOTOGRAPH?/SC,SX  
L15 73 SEA ABB=ON PLU=ON L14 AND USES?/RL  
L16 373141 SEA ABB=ON PLU=ON DYE?  
L17 1257422 SEA ABB=ON PLU=ON LIGHT? OR PHOTON?  
L18 58 SEA ABB=ON PLU=ON L15 AND L16  
L19 9 SEA ABB=ON PLU=ON L15 AND L16 AND L17  
L20 12 SEA ABB=ON PLU=ON L15 AND L17  
L21 21 SEA ABB=ON PLU=ON L11 OR L13 OR L19 OR L20  
L22 1 SEA ABB=ON PLU=ON L21 AND 2004:261067/AN

=> file reg

FILE 'REGISTRY' ENTERED AT 10:35:49 ON 28 JUN 2006

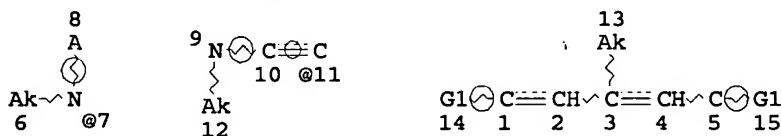
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L2 STR



VAR G1=7/11

NODE ATTRIBUTES:

NSPEC IS R AT 1  
NSPEC IS R AT 5  
NSPEC IS R AT 7  
NSPEC IS R AT 8  
NSPEC IS R AT 9  
NSPEC IS R AT 10  
NSPEC IS R AT 11

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

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STEREO ATTRIBUTES: NONE

L4 8048 SEA FILE=REGISTRY SSS FUL L2  
 L5 3552 SEA FILE=HCAPLUS ABB=ON PLU=ON L4  
 L6 84074 SEA FILE=HCAPLUS ABB=ON PLU=ON SILVER (2A) (HALIDE# OR  
 CHLOR? OR BROM? OR IODI? OR FLUOR?) OR AGX OR AGCL OR  
 AGBR OR AGI OR AG2F  
 L7 92826 SEA FILE=HCAPLUS ABB=ON PLU=ON ?HYDRAZINE?  
 L8 21138 SEA FILE=HCAPLUS ABB=ON PLU=ON ?BENZOTRIAZOLE?  
 L10 77 SEA FILE=HCAPLUS ABB=ON PLU=ON L5 AND L6 AND L7  
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 L13 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L5 (L) L6 (L) L7  
 L14 74 SEA FILE=HCAPLUS ABB=ON PLU=ON L10 AND PHOTOGRAPH?/SC,S  
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 L17 1257422 SEA FILE=HCAPLUS ABB=ON PLU=ON LIGHT? OR PHOTON?  
 L19 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND L16 AND L17  
 L20 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND L17  
 L21 21 SEA FILE=HCAPLUS ABB=ON PLU=ON L11 OR L13 OR L19 OR  
 L20

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=> d l21 1-21 ibib abs hitstr hitind

L21 ANSWER 1 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:650951 HCAPLUS

DOCUMENT NUMBER: 141:181893

TITLE: Silver halide photographic  
 light-sensitive material comprising a  
 particular dye, a hydrazine  
 derivate and a benzotriazole compound

INVENTOR(S): Hirano, Mitsunori; Ishigaki, Kunio

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 134 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1445649	A1	20040811	EP 2004-2312	20040203
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2004239995	A2	20040826	JP 2003-26652	20030204
US 2004209204	A1	20041021	US 2004-768440	20040202
PRIORITY APPLN. INFO.:			JP 2003-26652	A 20030204

10/768,440

Ross Shipe EIC 1700 Remsen 4B31 571/272-6018

OTHER SOURCE(S): MARPAT 141:181893

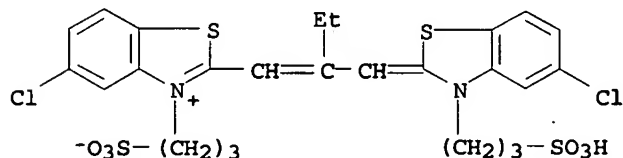
AB Disclosed is a **silver halide** photog. light-sensitive material comprising at least one **silver halide** emulsion layer and at least one hydrophilic colloid layer on a support, wherein **silver halide** in the **silver halide** emulsion layer has a **silver bromide** content of 40-90 mol %, and the **silver halide** emulsion layer is spectrally sensitized with a specific **dye**.

IT 23568-98-1

RL: TEM (Technical or engineered material use); **USES (Uses)** (photog. emulsion light-sensitive material comprising particular **dye**, **hydrazine** derivate and **benzotriazole** compd.)

RN 23568-98-1 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03C001-28

CC 74-2 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)

ST photog emulsion light sensitive material **dye**

**hydrazine benzotriazole** compd

IT **Dyes**

Photographic emulsions

(**silver halide** photog. light sensitive material comprising particular **dye**, **hydrazine** derivate and **benzotriazole** compd.)

IT 95-14-7, 1H-Benzotriazole 136-85-6, 5-Methylbenzotriazole 23568-98-1 166888-41-1 676262-82-1 736155-68-3

RL: TEM (Technical or engineered material use); **USES (Uses)** (photog. emulsion light-sensitive material comprising particular **dye**, **hydrazine** derivate and **benzotriazole** compd.)

L21 ANSWER 2 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:261067 HCAPLUS

DOCUMENT NUMBER: 140:294692

TITLE: **Silver halide** photographic light-sensitive film comprising **hydrazine** derivate and **benzotriazole** compound

INVENTOR(S): Hirano, Mitsunori; Ishigaki, Kunio; Oikawa, Tokuju

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 103 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

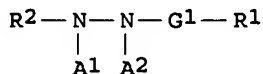
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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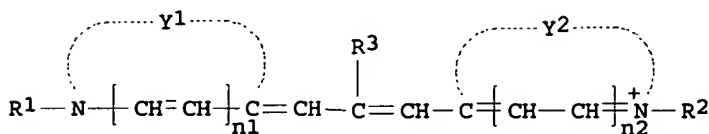


EP 1403698 A1 20040331 EP 2003-22176 20030930  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK  
 JP 2004125994 A2 20040422 JP 2002-287243 20020930  
 US 2004126721 A1 20040701 US 2003-671939 20030929  
 PRIORITY APPLN. INFO.: JP 2002-287243 A 20020930

OTHER SOURCE(S): MARPAT 140:294692  
 GI



I

(X<sup>1-</sup>)<sub>m1</sub>

II

AB Disclosed is a **silver halide** photog. light-sensitive film wherein a **silver halide** emulsion layer and/or a hydrophilic colloid layer contains at least one **hydrazine** deriv. of the general formula I (R<sup>1</sup> = H, blocking group; R<sup>2</sup> = aliph., arom., heterocyclic; G<sup>1</sup> = -CO-, -COCO-, -C(=S)-, -SO<sub>2</sub>-, SO-, -PO(R)-, iminomethylene; A<sup>1</sup>, A<sup>2</sup> = H, alkylsulfonyl, arylsulfonyl, acyl), and a **silver halide** emulsion is spectrally sensitized with a particular **dye**, and which contains a benzotriazol compd. of the general formula II (Y<sup>1</sup>, Y<sup>2</sup> = nonmetallic atom group required to form benzothiazole ring, benzoselenazole ring, naphthothiazole ring, naphthoselenazole ring or quinoline ring; R<sup>1</sup>, R<sup>2</sup> = alkyl that may have sulfo or carboxyl group; R<sup>3</sup> = Me, Et, Pr; X<sup>1</sup> = anion; n<sub>1</sub>, n<sub>2</sub> = 0 or 1; m<sub>1</sub> = 1 or 2, and m<sub>1</sub> = 0 when an intramol. salt is formed). There is provided a **silver halide** photog. light-sensitive film that exhibits superior residual color property and can provide stable photog. performance even after a long term running with a reduced silver amt.

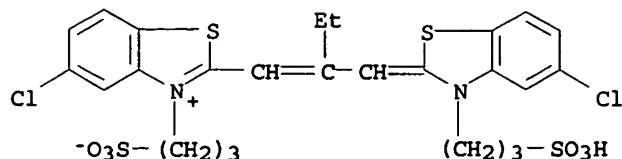
IT 23568-98-1

RL: TEM (Technical or engineered material use); USES (Uses)  
 (silver halide photog. light  
 -sensitive film comprising hydrazine derivate and  
 benzotriazole compd.)

RN 23568-98-1 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner

salt (9CI) (CA INDEX NAME)



IC ICM G03C001-28  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST color photog film silver halide  
 hydrazine derivate benzotriazole  
 IT Photographic films  
 (color; silver halide photog. light  
 -sensitive film comprising hydrazine derivate and  
 benzotriazole compd.)  
 IT 95-14-7, 1H-Benzotriazole 136-85-6, 5-  
 Methylbenzotriazole 23568-98-1 166888-42-2  
 426834-41-5 676262-82-1  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (silver halide photog. light  
 -sensitive film comprising hydrazine derivate and  
 benzotriazole compd.)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN  
 THE RE FORMAT

L21 ANSWER 3 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:427330 HCAPLUS

DOCUMENT NUMBER: 135:38864

TITLE: Photothermographic material with high maximum  
 density and ultrahigh contrast

INVENTOR(S): Suzuki, Keiichi; Kubo, Toshiaki; Inagaki,  
 Yoshio; Arai, Tsutomu

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: U.S., 133 pp., Cont.-in-part of U.S. Ser. No.  
 841,321, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6245499	B1	20010612	US 1998-137834	199808 21
JP 09304874	A2	19971128	JP 1996-148112	199605 17
JP 3639043	B2	20050413		
JP 09304873	A2	19971128	JP 1996-148117	199605 17
JP 10020437	A2	19980123	JP 1997-85759	199703 19
JP 10142727	A2	19980529	JP 1997-127999	199704 30

PRIORITY APPLN. INFO.:

JP 1996-132837	A	199604 30
JP 1996-132838	A	199604 30
JP 1996-148112	A	199605 17
JP 1996-148117	A	199605 17
US 1997-841321	B2	199704 30

OTHER SOURCE(S):

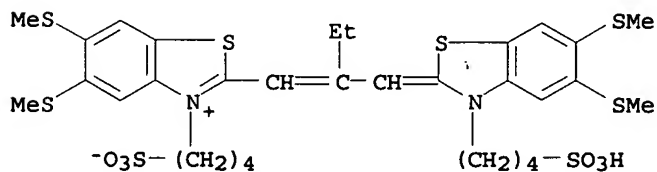
MARPAT 135:38864

AB In a photothermog. material comprising an org. silver salt, a silver halide, and a reducing agent, a hydrazine compd. of a special structure as defined in the claim and a sensitizing dye of a special structure as defined in the claim is disclosed. The photothermog. material has sensitivity from 600 to 850 nm, shows high max. d. (Dmax), ultrahigh contrast and improved resolu. and being free of residual color after processing.

IT 343985-92-2  
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(IR-absorbing dye; photothermog. material having sensitivity from 600 to 850 nm comprising org. silver salt, silver halide, reducing agent, hydrazine compd. and sensitizing dye)

RN 343985-92-2 HCAPLUS

CN Benzothiazolium, 2-[2-[[5,6-bis(methylthio)-3-(4-sulfobutyl)-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-5,6-bis(methylthio)-3-(4-sulfobutyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

IT 23216-67-3 134462-49-0 183663-67-4  
199997-78-9 343985-66-0 343985-85-3  
343985-86-4  
RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(sensitizing dye; photothermog. material having sensitivity from 600 to 850 nm comprising org. silver salt, silver halide, reducing agent, hydrazine compd. and sensitizing dye)

RN 23216-67-3 HCAPLUS

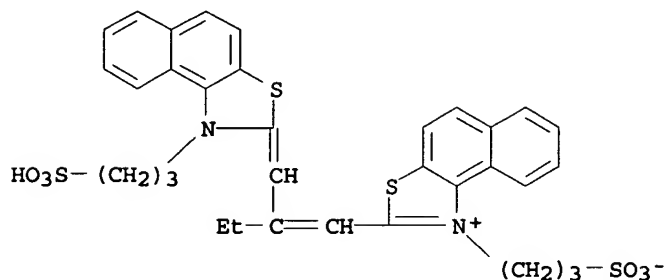
CN Naphtho[1,2-d]thiazolium, 1-(3-sulfopropyl)-2-[2-[[1-(3-sulfopropyl)naphtho[1,2-d]thiazol-2(1H)-ylidene]methyl]-1-butenyl]-,

inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 4622-66-6

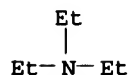
CMF C33 H32 N2 O6 S4



CM 2

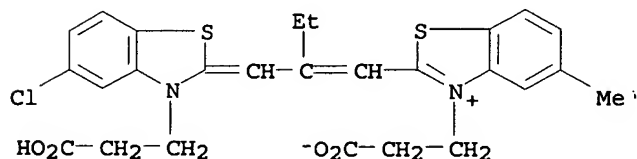
CRN 121-44-8

CMF C6 H15 N



RN 134462-49-0 HCAPLUS

CN Benzothiazolium, 3-(2-carboxyethyl)-2-[2-[[3-(2-carboxyethyl)-5-chloro-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-5-methyl-, inner salt (9CI) (CA INDEX NAME)



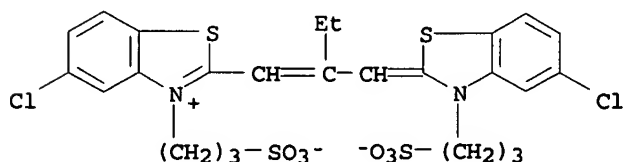
RN 183663-67-4 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt, ion(1-), 1-ethylpyridinium (9CI) (CA INDEX NAME)

CM 1

CRN 73077-89-1

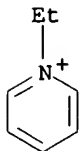
CMF C25 H25 Cl2 N2 O6 S4



CM 2

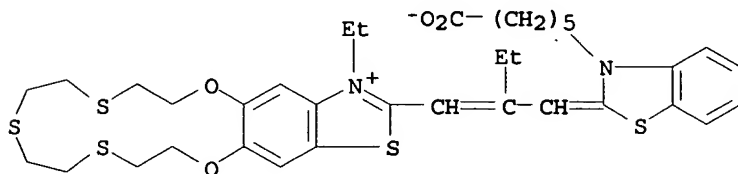
CRN 15302-96-2

CMF C7 H10 N



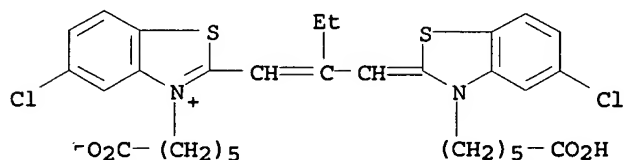
RN 199997-78-9 HCAPLUS

CN [1,4,7,10,13]Dioxatrithiacyclopentadecino[2,3-f]benzothiazolium,  
2-[2-[[3-(5-carboxypentyl)-2(3H)-benzothiazolylidene]methyl]-1-  
butenyl]-3-ethyl-6,7,9,10,12,13,15,16-octahydro-, inner salt (9CI)  
(CA INDEX NAME)



RN 343985-66-0 HCAPLUS

CN Benzothiazolium, 3-(5-carboxypentyl)-2-[2-[[3-(5-carboxypentyl)-5-  
chloro-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-5-chloro-, inner  
salt (9CI) (CA INDEX NAME)



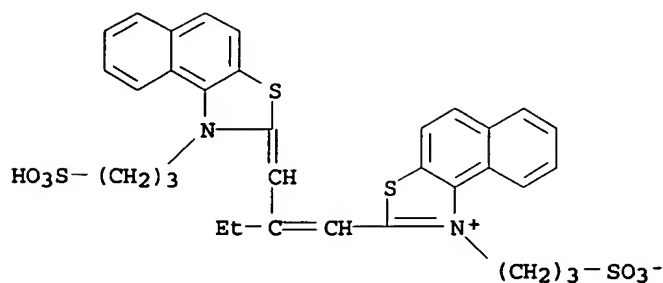
RN 343985-85-3 HCAPLUS

CN Naphtho[1,2-d]thiazolium, 1-(3-sulfopropyl)-2-[2-[[1-(3-  
sulfopropyl)naphtho[1,2-d]thiazol-2(1H)-ylidene]methyl]-1-butenyl]-,  
inner salt, compd. with N,N-dimethylmethanamine (1:1) (9CI) (CA  
INDEX NAME)

CM 1

CRN 4622-66-6

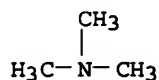
CMF C33 H32 N2 O6 S4



CM 2

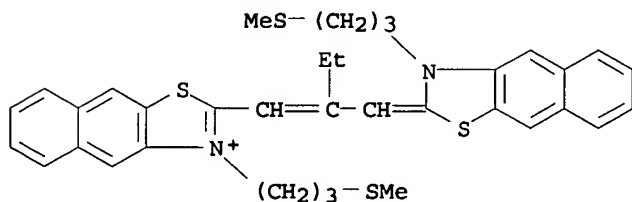
CRN 75-50-3

CMF C3 H9 N



RN 343985-86-4 HCAPLUS

CN Naphtho[2,3-d]thiazolium, 3-[3-(methylthio)propyl]-2-[2-[[3-[3-(methylthio)propyl]naphtho[2,3-d]thiazol-2(3H)-ylidene]methyl]-1-butenyl]-, iodide (9CI) (CA INDEX NAME)



● I<sup>-</sup>

IC ICM G03C001-498

ICS G03C001-20; G03C001-34

INCL 430619000

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST photog photothermog film ultrahigh contrast sensitizing dye hydrazine compd

IT Photographic films

Photographic sensitizers

(photothermog. material having sensitivity from 600 to 850 nm comprising org. silver salt, silver halide, reducing agent, hydrazine compd. and sensitizing dye)

IT 193288-45-8 343985-92-2

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(IR-absorbing dye; photothermog. material having sensitivity from 600 to 850 nm comprising org. silver salt, silver halide, reducing agent, hydrazine compd. and sensitizing dye)

IT 177167-90-7P  
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation);  
 TEM (Technical or engineered material use); PREP (Preparation); RACT  
 (Reactant or reagent); USES (Uses)  
 (IR-absorbing dye; photothermog. material having sensitivity from  
 600 to 850 nm comprising org. **silver salt**,  
**silver halide**, reducing agent,  
**hydrazine** compd. and sensitizing dye)

IT 110992-86-4P 177167-94-1P  
 RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or  
 engineered material use); PREP (Preparation); USES (Uses)  
 (IR-absorbing dye; photothermog. material having sensitivity from  
 600 to 850 nm comprising org. **silver salt**,  
**silver halide**, reducing agent,  
**hydrazine** compd. and sensitizing dye)

IT 177168-07-9P 177168-08-0P 177168-15-9P 186799-79-1P  
 RL: SPN (Synthetic preparation); TEM (Technical or engineered  
 material use); PREP (Preparation); USES (Uses)  
 (IR-absorbing dye; photothermog. material having sensitivity from  
 600 to 850 nm comprising org. **silver salt**,  
**silver halide**, reducing agent,  
**hydrazine** compd. and sensitizing dye)

IT 53770-52-8 114090-18-5 197084-27-8  
 RL: PEP (Physical, engineering or chemical process); TEM (Technical  
 or engineered material use); PROC (Process); USES (Uses)  
 (decolorizable dye; photothermog. material having sensitivity  
 from 600 to 850 nm comprising org. **silver salt**,  
**silver halide**, reducing agent,  
**hydrazine** compd. and sensitizing dye and decolorizable  
 dye)

IT 6632-39-9 35020-01-0 58132-23-3 79984-60-4 109870-41-9  
 112804-90-7 133024-69-8 134978-85-1 159892-49-6 165809-84-7  
 169225-88-1 172527-76-3 179098-71-6 183252-42-8 184098-63-3  
 184099-04-5 188861-20-3 188861-27-0 188861-31-6 199191-62-3  
 199997-62-1 199997-63-2 343985-76-2 343985-77-3 343985-78-4  
 343985-79-5 343985-80-8 343985-81-9 343985-82-0 343985-83-1  
 343985-87-5 343985-89-7 343985-90-0 343985-91-1  
 RL: PEP (Physical, engineering or chemical process); TEM (Technical  
 or engineered material use); PROC (Process); USES (Uses)  
 (**hydrazine** compd.; photothermog. material having  
 sensitivity from 600 to 850 nm comprising org. **silver**  
**salt**, **silver halide**, reducing agent,  
**hydrazine** compd. and sensitizing dye)

IT 23178-67-8  
 RL: PEP (Physical, engineering or chemical process); TEM (Technical  
 or engineered material use); PROC (Process); USES (Uses)  
 (photothermog. material having sensitivity from 600 to 850 nm  
 comprising org. **silver salt**, **silver**  
**halide**, reducing agent, **hydrazine** compd. and  
 sensitizing dye)

IT 149-30-4, 2-Mercaptobenzothiazole 583-39-1, 2-  
 Mercaptobenzimidazole 872-35-5, 2-Mercaptoimidazole 2382-96-9,  
 2-Mercaptobenzoxazole 27231-36-3, 2-Mercapto-5-methylbenzimidazole  
 RL: PEP (Physical, engineering or chemical process); TEM (Technical  
 or engineered material use); PROC (Process); USES (Uses)  
 (photothermog. material having sensitivity from 600 to 850 nm  
 comprising org. **silver salt**, **silver**  
**halide**, reducing agent, **hydrazine** compd. and  
 sensitizing dye and arom. mercapto compd.)

IT 23216-67-3 34021-09-5 38395-13-0 95640-93-0  
 95889-43-3 134462-49-0 147816-52-2 151867-23-1  
 170153-79-4 173592-97-7 183663-67-4 185533-52-2  
 193288-46-9 199997-70-1 199997-71-2 199997-78-9  
 199997-82-5 199997-84-7 199997-87-0 343985-65-9 343985-66  
 -0 343985-68-2 343985-70-6 343985-71-7 343985-72-8  
 343985-74-0 343985-75-1 343985-84-2 343985-85-3

343985-86-4 343985-88-6  
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (sensitizing dye; photothermog. material having sensitivity from 600 to 850 nm comprising org. **silver** salt, **silver halide**, reducing agent, **hydrazine** compd. and sensitizing dye)

IT 95-14-7, 1H-Benzotriazole 113952-54-8  
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (supersensitizing agent; photothermog. material having sensitivity from 600 to 850 nm comprising org. **silver** salt, **silver halide**, reducing agent, **hydrazine** compd. and sensitizing dye and arom. mercapto compd.)

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 4 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:271885 HCAPLUS

DOCUMENT NUMBER: 132:315760

TITLE: Photographic element having enhanced photosensitivity

INVENTOR(S): Adin, Anthony; Looker, Jerome J.; Farid, Samir Y.; Gould, Ian R.; Godleski, Stephen A.; Lenhard, Jerome R.; Muentner, Annabel A.; Vishwakarma, Lal C.; Zielinski, Paul A.

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE: U.S., 53 pp., Cont.-in-part of U.S. Ser. No. 900,957, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6054260	A	20000425	US 1998-118714	19980717
JP 11095355	A2	19990409	JP 1998-211015	19980727
US 6306570	B1	20011023	US 2000-536300	20000327
PRIORITY APPLN. INFO.:			US 1997-900957	B2 19970725
			US 1998-118714	A3 19980717

OTHER SOURCE(S): MARPAT 132:315760

AB A photog. element comprises at least one **silver halide** emulsion layer in which the **silver halide** is sensitized with a compd. of the formula A(XY)<sub>k</sub>, (A)<sub>k</sub>XY, Z(XY)<sub>k</sub>, or (Z)<sub>k</sub>XY wherein A is a **silver halide**-adsorptive group that contains at least one atom of N, S, Se, and Te that promotes adsorption to **silver halide**; Z is a **light**-absorbing group including that derived from cyanine **dyes**, complex cyanine



dyes, merocyanine dyes, complex merocyanine dyes, homopolar cyanine dyes, styryl dyes, oxonol dyes, hemioxonol dyes, and hemicyanine dyes; k is 1 or 2; and XY is a fragmentable electron donor moiety in which X is an electron donor group and Y is a leaving group other than hydrogen provided that (1) XY has an oxidn. potential of 0-1.4 V and (2) the oxidized form of XY undergoes a bond-cleaving reaction to give the radical X. and the leaving fragment Y. In a preferred embodiment of the invention, the radical X. has an oxidn. potential  $\leq -0.7$  V.

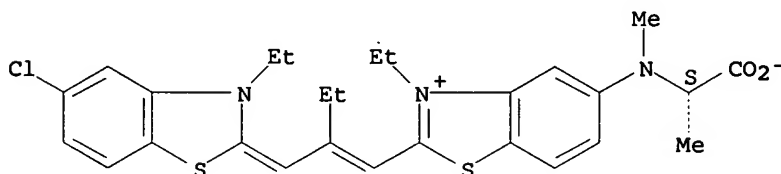
IT 265122-76-7 265122-81-4 265122-82-5  
265122-85-8

RL: TEM (Technical or engineered material use); USES (Uses)  
(spectral sensitizer for silver halide  
photog. materials)

RN 265122-76-7 HCAPLUS

CN Benzothiazolium, 5-[[[(1S)-1-carboxyethyl]methylamino]-2-[2-[(5-chloro-3-ethyl-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-3-ethyl-, inner salt (9CI) (CA INDEX NAME)

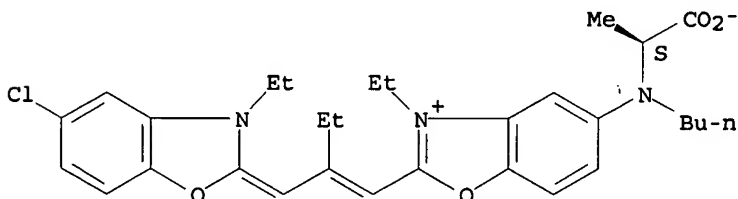
Absolute stereochemistry.  
Double bond geometry unknown.



RN 265122-81-4 HCAPLUS

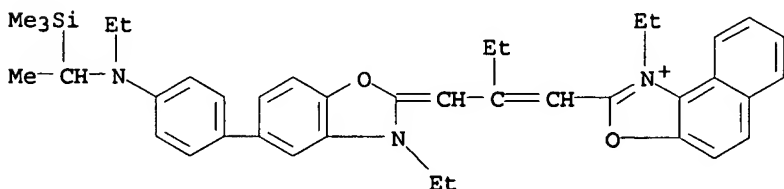
CN Benzoxazolium, 5-[butyl[(1S)-1-carboxyethyl]amino]-2-[2-[(5-chloro-3-ethyl-2(3H)-benzoxazolylidene)methyl]-1-butenyl]-3-ethyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.



RN 265122-82-5 HCAPLUS

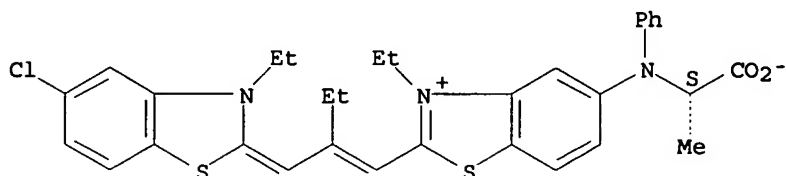
CN Naphth[1,2-d]oxazolium, 1-ethyl-2-[2-[[[3-ethyl-5-[4-[ethyl[1-(trimethylsilyl)ethyl]amino]phenyl]-2(3H)-benzoxazolylidene)methyl]-1-butenyl]- (9CI) (CA INDEX NAME)



RN 265122-85-8 HCAPLUS

CN Benzothiazolium, 5-[[[(1S)-1-carboxyethyl]phenylamino]-2-[2-[(5-chloro-3-ethyl-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-3-ethyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry unknown.



IC ICM G03C001-10

ICS G03C001-12

INCL 430583000

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST silver halide photog material fragmentable  
electron donating sensitizer

IT 88-10-8, Diethylcarbamyl chloride 100-61-8, N-Methylaniline, reactions 105-36-2, Ethyl bromoacetate 120-75-2, 2-Methylbenzothiazole 535-11-5, Ethyl 2-bromopropionate 590-17-0, Bromoacetonitrile 624-84-0, Formylhydrazine 1827-97-0 3530-13-0 23249-96-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction in synthesis of fragmentable electron-donating compd. as photog. sensitizer)

IT	265122-53-0	265122-54-1	265122-57-4	265122-58-5	265122-59-6
	265122-60-9	265122-61-0	265122-62-1	265122-63-2	265122-64-3
	265122-65-4	265122-66-5	265122-67-6	265122-68-7	265122-69-8
	265122-70-1	265122-71-2	265122-72-3	265122-76-7	
	265122-77-8	265122-78-9	265122-79-0	265122-80-3	
	265122-81-4	265122-82-5	265122-83-6		
	265122-84-7	265122-85-8			

RL: TEM (Technical or engineered material use); USES (Uses)  
(spectral sensitizer for silver halide photog. materials)

IT	237413-97-7P	265122-52-9P	265122-55-2P	265122-56-3P
	265122-73-4P	265122-74-5P	265122-75-6P	

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(synthesis and use as spectral sensitizer for silver halide photog. materials)

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 5 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:32283 HCAPLUS

DOCUMENT NUMBER: 130:146171

TITLE: Spectrally sensitized silver halide photographic material containing hydrazine and rapid and/or low-replenishment processing using it

INVENTOR(S): Tanabe, Junichi

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 78 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11007094	A2	19990112	JP 1997-159863	19970617
PRIORITY APPLN. INFO.:			JP 1997-159863	19970617

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

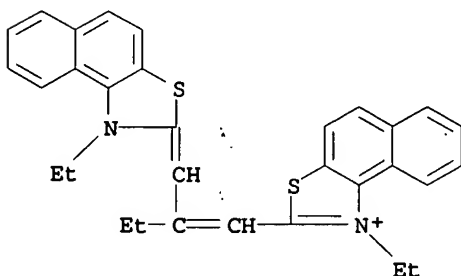
AB The material comprises a support successively coated with (A) an emulsion layer contg. Ag halide grains with the av. diam. of  $\geq 0.2 \mu\text{m}$  and a hydrazine compd. selected from a 1-carbonylhydrazine substituted with an electron-withdrawing group on the carbonyl group, a 1-oxalylhydrazine substituted with an anionic or ring-forming group on the oxalyl group, a 1-(carbonyl- or oxalyl)-2(o-substituted phenyl)hydrazine, a 1-mono- or di-fluoroacetohydrazine, and a 1-(trifluoromethyl-substituted acyl)-2-sulfoaminophenylhydrazine and (B) a hydrophilic nonphotog. colloid layer contg. a lubricating agent, dextrin, and/or dextran, in which  $\geq 1$  layer is spectrally sensitized with a polyconjugated compd. selected from compds. I-VII. Also claimed is the method for processing the above photog. material in 10-60 s on dry-to-dry basis. It shows high panchromatic sensitivity without loss the dot quality or formation of residual dye stain, and is suitably used as the scanner films for photomech. applications.

IT 3028-94-2 4622-66-6  
 RL: DEV (Device component use); MOA (Modifier or additive use); USES (Uses)

(spectral sensitizer; rapid and/or low-replenishment processing of spectrally sensitized **silver halide** photog. material contg. **hydrazine** deriv.)

RN 3028-94-2 HCAPLUS

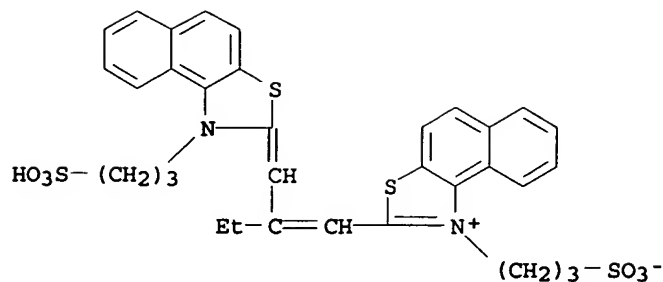
CN Naphtho[1,2-d]thiazolium, 1-ethyl-2-[2-[(1-ethylnaphtho[1,2-d]thiazol-2(1H)-ylidene)methyl]-1-butenyl]-, bromide (9CI) (CA INDEX NAME)



● Br<sup>-</sup>

RN 4622-66-6 HCAPLUS

CN Naphtho[1,2-d]thiazolium, 1-(3-sulfopropyl)-2-[2-[[1-(3-sulfopropyl)naphtho[1,2-d]thiazol-2(1H)-ylidene)methyl]-1-butenyl]-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03C001-06  
 ICS G03C001-04; G03C001-14; G03C001-22; G03C001-26; G03C001-95;  
 G03C005-08; G03C005-26  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)  
 IT 3028-94-2 4622-66-6 94033-75-7 161004-04-2  
 219991-04-5 219991-06-7 219991-07-8 219991-08-9 219991-09-0  
 219991-10-3 219991-11-4  
 RL: DEV (Device component use); MOA (Modifier or additive use); USES  
 (Uses)  
 (spectral sensitizer; rapid and/or low-replenishment processing  
 of spectrally sensitized silver halide  
 photog. material contg. hydrazine deriv.)

L21 ANSWER 6 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:740858 HCAPLUS

DOCUMENT NUMBER: 128:28573

TITLE: Photographic silver halide  
 material and method for production of silver  
 images

INVENTOR(S): Varescon, Francois; Rueger, Reinhold

PATENT ASSIGNEE(S): Du Pont De Nemours (Deutschland) GmbH, Germany

SOURCE: Ger. Offen., 17 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

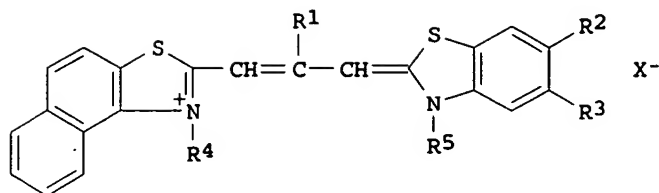
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19617252	A1	19971106	DE 1996-19617252	199604 30
PRIORITY APPLN. INFO.:				DE 1996-19617252 199604 30

OTHER SOURCE(S): MARPAT 128:28573

GI



I

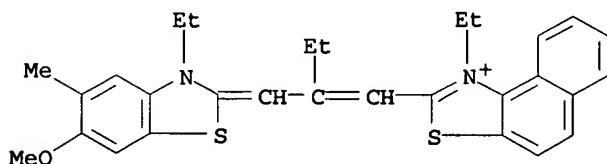
AB In the title material comprising on a support at least a light-sensitive Ag halide emulsion layer contg. photog. sensitizer sensitive for 600-690 nm light, the sensitizer is represented by a general formula I (R1 = C1-6 alkyl, heterocycle; R2, R3 = H, Me, OMe; R4, R5 = C1-6 alkyl; X- = anion). The material may contain a hydrazine compd. and/or an amino compd. The material showing low color residuals is suitable for producing black-and-white neg. images with ultrahigh contrast for reprodn. of printing plates.

IT 199433-39-1 199433-41-5 199433-42-6

RL: DEV (Device component use); USES (Uses)  
(photog. silver halide material and method  
for prodn. of silver images)

RN 199433-39-1 HCAPLUS

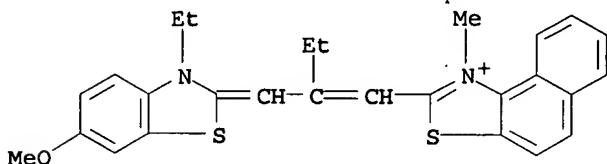
CN Naphtho[1,2-d]thiazolium, 1-ethyl-2-[2-[(3-ethyl-6-methoxy-5-methyl-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-, iodide (9CI) (CA INDEX NAME)



● I-

RN 199433-41-5 HCAPLUS

CN Naphtho[1,2-d]thiazolium, 2-[2-[(3-ethyl-6-methoxy-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-1-methyl-, iodide (9CI) (CA INDEX NAME)

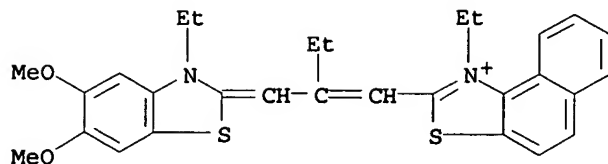


● I-

RN 199433-42-6 HCAPLUS

CN Naphtho[1,2-d]thiazolium, 1-ethyl-2-[2-[(3-ethyl-5,6-dimethoxy-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-, iodide (9CI) (CA INDEX NAME)

(NAME)



● I -

IC ICM G03C001-18  
 ICS G03C001-26; G03C001-34  
 ICA C07D277-64; C07D277-84  
 CC 74-2 (Radiation Chemistry, Photochemistry, and **Photographic**  
 and Other Reprographic Processes)  
 IT Photographic emulsions  
 Photographic films  
 Photographic sensitizers  
 Printing plates  
 (photog. **silver halide** material and method  
 for prodn. of silver images)  
 IT 124993-62-0 199433-39-1 199433-40-4 199433-41-5  
 199433-42-6 199433-43-7  
 RL: DEV (Device component use); **USES (Uses)**  
 (photog. **silver halide** material and method  
 for prodn. of silver images)

L21 ANSWER 7 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1995:890515 HCAPLUS  
 DOCUMENT NUMBER: 124:41280  
 TITLE: Black-and-white **silver halide**  
 photographic material  
 INVENTOR(S): Fukawa, Junichi; Goto, Kenji; Nagashima,  
 Toshiharu  
 PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07209790	A2	19950811	JP 1994-3200	199401 17
PRIORITY APPLN. INFO.:				199401 17

AB The material with a support is characterized by that (1) the Ag emulsion layer contains Ag halide grains with av. grain size  $\leq 0.3 \mu\text{m}$ , **AgCl** content  $\geq 30 \text{ mol}\%$ , (2) the emulsion layer contains  $\geq 1$  sensitizing **dye** having absorption max. at 450-580 nm, (3) the emulsion layer or its adjacent hydrophilic colloid layer contains a tetrazolium compd. or a **hydrazine** deriv., and (4) the backside colloid layer shows **light** absorption  $\geq 0.3$  at 620 nm. The

material shows good web transport property and gives high-contrast image.

IT 39201-42-8

RL: DEV (Device component use); **USES (Uses)**  
(sensitizing **dye**; black-and-white high-contrast Ag halide photog. material contg. tetrazolium or **hydrazine**)

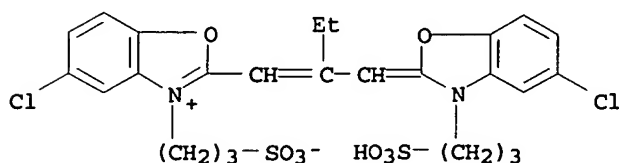
RN 39201-42-8 HCAPLUS

CN Benzoxazolium, 5-chloro-2-[2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 6200-35-7

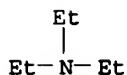
CMF C25 H26 Cl2 N2 O8 S2



CM 2

CRN 121-44-8

CMF C6 H15 N



IC ICM G03C001-06

ICS G03C001-035; G03C001-18; G03C001-22; G03C001-295; G03C001-76; G03C001-825

CC 74-2 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)

ST black white photog material; tetrazolium photog material high contrast; **hydrazine** photog material high contrast

IT Photographic films

(black-and-white high-contrast Ag halide photog. material contg. tetrazolium or **hydrazine**)

IT 66096-14-8 88320-87-0

RL: DEV (Device component use); **USES (Uses)**

(back coating **dye**; black-and-white high-contrast Ag halide photog. material contg. tetrazolium or **hydrazine**)

IT 298-96-4 104497-77-0 104497-79-2 124013-75-8 141677-68-1 155926-81-1 165739-43-5 171911-98-1

RL: DEV (Device component use); MOA (Modifier or additive use);

**USES (Uses)**

(black-and-white high-contrast Ag halide photog. material contg. tetrazolium or **hydrazine**)

IT 18056-77-4 39201-42-8 110009-46-6

RL: DEV (Device component use); **USES (Uses)**

(sensitizing **dye**; black-and-white high-contrast Ag halide photog. material contg. tetrazolium or **hydrazine**)

L21 ANSWER 8 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:613154 HCAPLUS  
 DOCUMENT NUMBER: 123:127469  
 TITLE: Methine compound and silver halide photographic material containing it  
 INVENTOR(S): Hioki, Takanori  
 PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 42 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07092600	A2	19950407	JP 1993-235141	19930921
JP 2001027789	A2	20010130	JP 2000-196430	19930921
JP 3355180	B2	20021209		
US 5459025	A	19951017	US 1994-309672	19940921
PRIORITY APPLN. INFO.:			JP 1993-235141	A3 19930921

AB The methine compd. consists of (MET)k(QlHy)m (I; MET = methine-contg. group; Q = atom or at. group contg. C, N, S, and/or O; Hy = group contg. R1R2NNR3R4; R1-4 = alkyl, aryl, heterocyclic group; ≥1 Hy is substituted with (MET)k(Q)l; k = 0-4; l = 0, 1; m = 1-4). The material contains ≥1 I. The material showed high sensitivity and good storage stability.

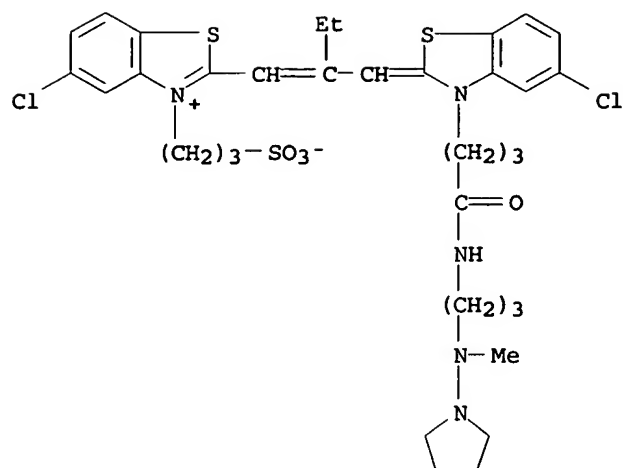
IT 166307-07-9P 166307-08-0P 166307-09-1P  
 RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(hydrazine-contg. methine compd. and high-sensitivity silver halide photog. material)

RN 166307-07-9 HCAPLUS

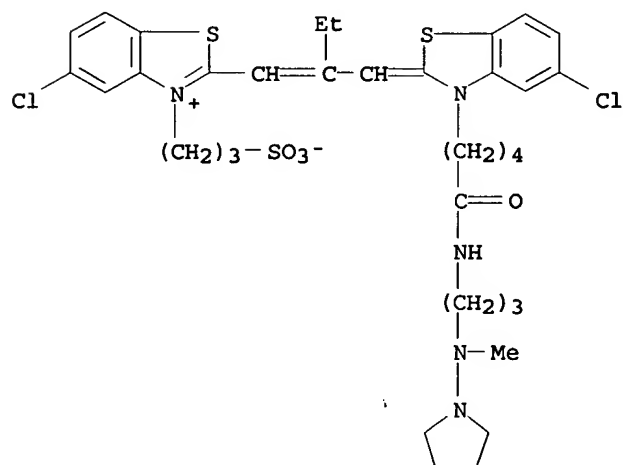
CN Benzothiazolium, 5-chloro-2-[2-[[5-chloro-3-[4-[[3-(methyl-1-pyrrolidinylamino)propyl]amino]-4-oxobutyl]-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)





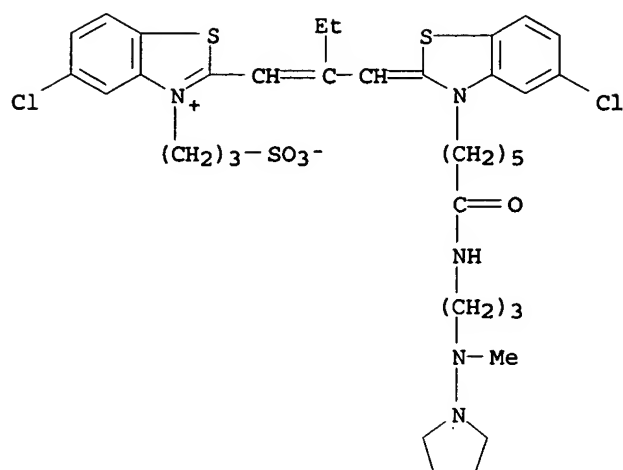
RN 166307-08-0 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[[5-chloro-3-[5-[[3-(methyl-1-pyrrolidinylamino)propyl]amino]-5-oxopentyl]-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



RN 166307-09-1 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[[5-chloro-3-[6-[[3-(methyl-1-pyrrolidinylamino)propyl]amino]-6-oxohexyl]-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)

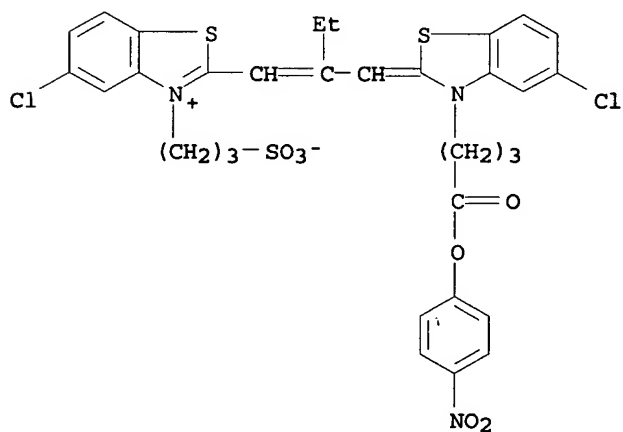


IT 166307-14-8 166307-16-0 166307-17-1

RL: RCT (Reactant); RACT (Reactant or reagent)  
(hydrazine-contg. methine compd. and high-sensitivity  
silver halide photog. material)

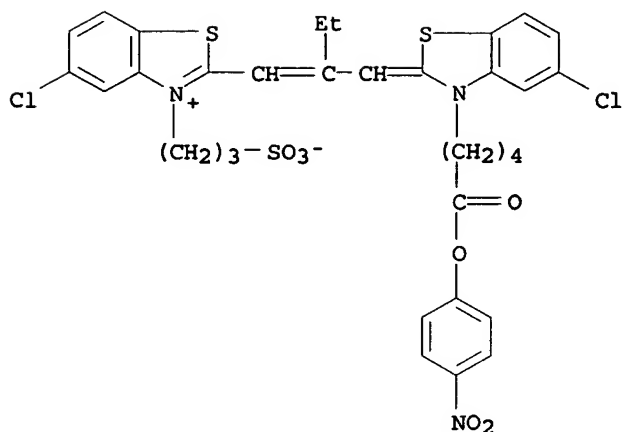
RN 166307-14-8 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[[5-chloro-3-[4-(4-nitrophenoxy)-4-oxobutyl]-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)

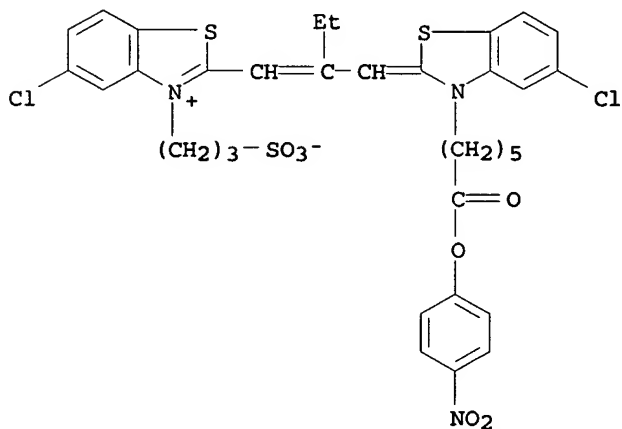


RN 166307-16-0 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[[5-chloro-3-[5-(4-nitrophenoxy)-5-oxopentyl]-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



RN 166307-17-1 HCAPLUS  
 CN Benzothiazolium, 5-chloro-2-[2-[[5-chloro-3-[6-(4-nitrophenoxy)-6-oxohexyl]-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03C001-12  
 ICS C09B023-00; G03C001-015; G03C001-06  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 28  
 IT 166307-07-9P 166307-08-0P 166307-09-1P  
 166307-10-4P 166307-11-5P  
 RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (hydrazine-contg. methine compd. and high-sensitivity silver halide photog. material)  
 IT 111-36-4 1663-67-8, Propanedioyl dichloride 16515-90-5  
 58480-17-4 63149-20-2 160453-28-1 166307-14-8  
 166307-15-9 166307-16-0 166307-17-1  
 166307-18-2  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (hydrazine-contg. methine compd. and high-sensitivity silver halide photog. material)

L21 ANSWER 9 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:425014 HCAPLUS  
 DOCUMENT NUMBER: 122:326357  
 TITLE: Hydrazine-containing silver halide high-contrast photographic material and its processing method  
 INVENTOR(S): Ito, Katsuhiko; Ito, Hirohide; Sanpei, Takeshi; Aritomi, Juji  
 PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07005603	A2	19950110	JP 1993-143779	19930615
PRIORITY APPLN. INFO.:				JP 1993-143779
				19930615

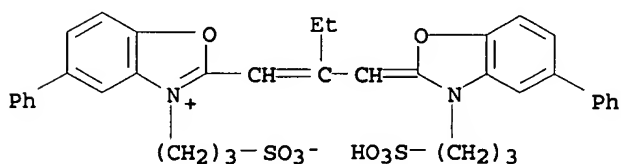
AB The material, contg. a hydrazine deriv. in the Ag halide emulsion layer and/or its adjacent layer giving high-contrast by development at pH 10.0-11.2, is characterized by a sensitizing dye is added before terminating the desalting stage (preferably after terminating the mixing stage) in the emulsion making. The method using a developer of pH <11.2 is claimed. The method prevents black pepper fog generation.

IT 33628-03-4 64722-51-6

RL: DEV (Device component use); USES (Uses)  
 (sensitizing dye; silver halide color photog.  
 material contg. hydrazine for high contrast image)

RN 33628-03-4 HCAPLUS

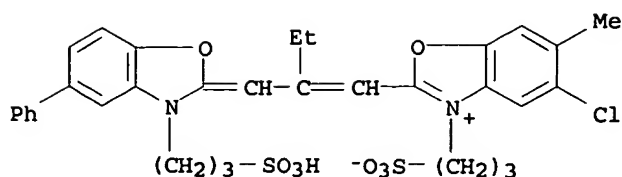
CN Benzoxazolium, 5-phenyl-2-[2-[[5-phenyl-3-(3-sulfopropyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

RN 64722-51-6 HCAPLUS

CN Benzoxazolium, 5-chloro-6-methyl-2-[2-[[5-phenyl-3-(3-sulfopropyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)



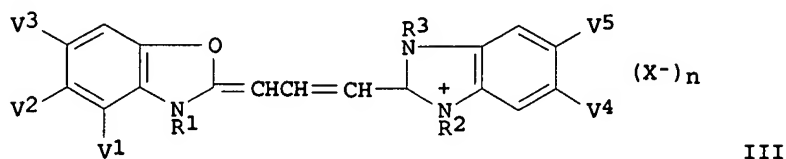
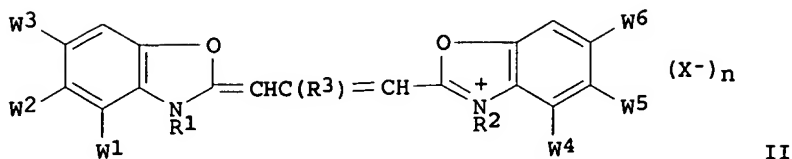
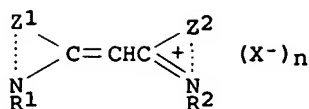
● Na

IC ICM G03C001-015  
 ICS G03C001-06; G03C001-18; G03C001-22; G03C005-29  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)  
 IT 2788-75-2 14193-65-8 33628-03-4 36434-62-5  
 64722-51-6 75412-01-0 75412-05-4 75422-94-5  
 105600-87-1 137308-30-6 163588-06-5 163588-07-6 163588-08-7  
 RL: DEV (Device component use); USES (Uses)  
 (sensitizing dye; silver halide color photog.  
 material contg. hydrazine for high contrast image)

L21 ANSWER 10 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1995:340546 HCAPLUS  
 DOCUMENT NUMBER: 122:147040  
 TITLE: Silver halide photographic materials  
 INVENTOR(S): Ezoe, Toshihide; Yamazaki, Kazuki; Koto,  
 Kazunobu  
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 51 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06180477	A2	19940628	JP 1992-334399	199212 15
PRIORITY APPLN. INFO.:				199212 15

GI



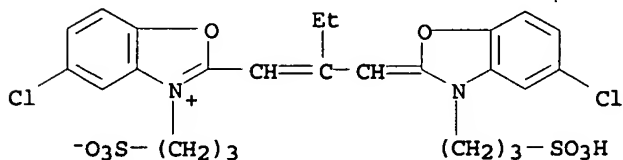
AB A silver halide photog. material providing superhigh-contrast images even processed in a low-pH developer comprises  $\geq 1$  silver halide emulsion layer contg. chem. sensitized silver halide grains contg.  $\geq 50$  mol% AgCl and contains in  $\geq 1$  of silver halide emulsion layers and other hydrophilic colloid layers a hydrazine deriv.,  $\geq 1$  compd. having the formula I (Z1, Z2 = a nonmetallic at. group necessary to form a heterocyclic ring; R1, R2 = alkyl or aralkyl; X- = an anion; n = 0 or 1), and  $\geq 1$  of spectral sensitizers having the formulas II (W1, W4 = H; W3, W6 = H, Me, or methoxy; W2 = alkyl, alkoxy, Br, I, or aryl or together with W1 or W3 may form a heterocyclic ring; W5 = alkyl, alkoxy, halogen, OH, aryl, aryloxy, arylthio, alkylthio, or acylamino or together with W4 or W6 may form a benzene ring; R1, R2 = alkyl or alkenyl with  $\geq 1$  of R1 and R2 contg. a sulfo or carboxy; X-, n = 0 or 1) and III (V1 = H; V2 = H, halogen, OH, alkyl, alkoxy, aryl, arylthio, arylthio, alkylthio, or acylamino or together with V1 or V3 may form a benzene ring; V3 = H, Me, or methoxy; V4 = an electron-withdrawn group; V5 = H, F, Cl, or Br; R1-3 = alkyl or alkenyl with  $\geq 1$  R1-3 contg. a sulfo or carboxy group; X-, n = 0 or 1).

IT 18360-25-3 113841-24-0

RL: TEM (Technical or engineered material use); USES (Uses) (high-contrast silver halide photog. materials contg. hydrazine derivs. and)

RN 18360-25-3 HCAPLUS

CN Benzoxazolium, 5-chloro-2-[2-[[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)

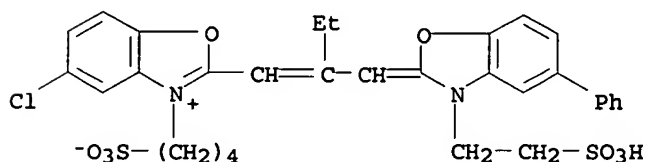


● Na

RN 113841-24-0 HCAPLUS  
 CN Benzoxazolium, 5-chloro-2-[2-[[5-phenyl-3-(2-sulfoethyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-(4-sulfobutyl)-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

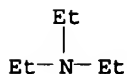
CM 1

CRN 113841-23-9  
 CMF C31 H31 Cl N2 O8 S2



CM 2

CRN 121-44-8  
 CMF C6 H15 N



IC ICM G03C001-06  
 ICS G03C001-035; G03C001-16; G03C001-18; G03C005-29  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT 18360-25-3 68162-29-8 113841-24-0 114881-22-0  
 132184-75-9 160767-61-3  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (high-contrast silver halide photog.  
 materials contg. hydrazine derivs. and)

L21 ANSWER 11 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:469393 HCAPLUS

DOCUMENT NUMBER: 121:69393

TITLE: Silver halide photographic materials

INVENTOR(S): Yasuda, Shoji; Kuwabara, Kenichi

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 49 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05281651	A2	19931029	JP 1992-108421	19920402
PRIORITY APPLN. INFO.:			JP 1992-108421	19920402

AB In the Ag halide photog. material comprising  $\geq 1$  Ag halide

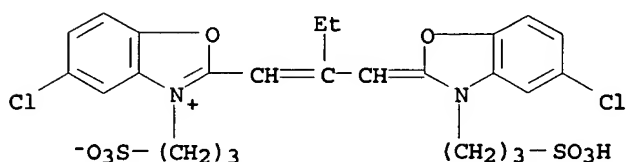
emulsion layer on a support, the Ag halide emulsion layer or other hydrophilic colloidal layers contain(s)  $\geq 1$  org. desensitizing agent, and a layer over said hydrophilic colloidal layer contains  $\geq 1$  dye microparticle dispersion. Preferably, the Ag halide emulsion layer or other hydrophilic colloidal layers contain(s)  $\geq 1$  hydrazine deriv. or  $\geq 1$  tetrazolium compd. This photog. material is used for photog. printing process, and can be handled in a lighted room.

IT 18360-25-3

RL: TEM (Technical or engineered material use); USES (Uses)  
(silver halide photog. material contg.)

RN 18360-25-3 HCAPLUS

CN Benzoxazolium, 5-chloro-2-[2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzoxazolyliidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM G03C001-36

ICS G03C001-06; G03C001-10; G03C001-825

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST silver halide photog material; desensitizing agent silver halide photog; dye microparticle dispersion photog material; hydrazine deriv silver halide photog; tetrazolium compd silver halide photog

IT Onium compounds

RL: TEM (Technical or engineered material use); USES (Uses)  
(tetrazolium, silver halide photog. materials contg.)

IT 81-93-6, Phenosafranin 3565-40-0, Pinakryptol Yellow

18360-25-3 64137-48-0 115878-03-0 125748-09-6

137641-46-4 148520-58-5 156294-09-6 156294-10-9 156343-01-0

RL: TEM (Technical or engineered material use); USES (Uses)  
(silver halide photog. material contg.)

L21 ANSWER 12 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:179929 HCAPLUS

DOCUMENT NUMBER: 118:179929

TITLE: Silver halide photographic material and processing method therefor

INVENTOR(S): Hattori, Kaoru; Yoshida, Kazuhiro

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 04328738

A2 19921117

JP 1991-99012

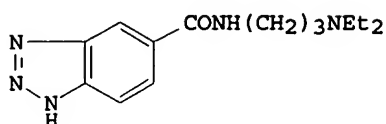
199104  
30

PRIORITY APPLN. INFO.:

JP 1991-99012

199104  
30

GI



I

AB In the title material comprising a support having thereon one or more silver halide emulsion layers, the silver halide emulsion layers or other hydrophilic colloid layers contain a sensitizing dye and a hydrazine deriv. represented by general structure R1NA1NA2GR2 [R1 = aliph. group, arom. moiety; R2 = H, alkyl, aryl, alkoxy, etc.; G = carbonyl, sulfonyl, etc.; A1 = A2 = H; or one of A1 and A2 is H, the other is (substituted) alkylsulfonyl, arylsulfonyl, etc.]. The title material also contains a benzotriazole deriv. and a mercaptoalkylamino deriv. Compd. I is an example of the benzotriazole deriv. The title material shows high sensitivity. Also claimed is the title method.

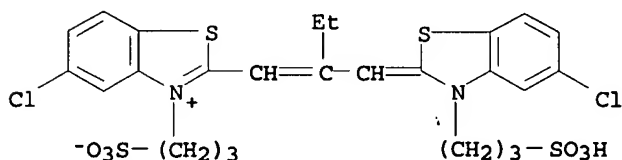
IT 23568-98-1 42215-42-9 133807-12-2

RL: USES (Uses)

(photog. sensitizing dye)

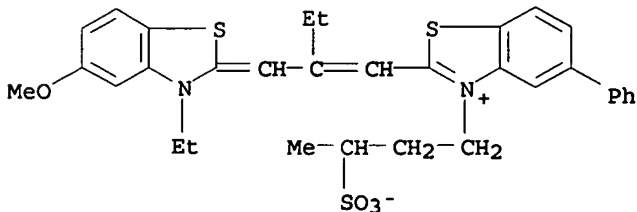
RN 23568-98-1 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



RN 42215-42-9 HCAPLUS

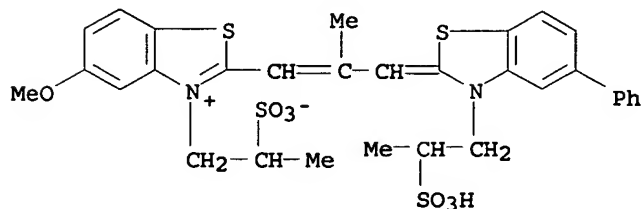
CN Benzothiazolium, 2-[2-[(3-ethyl-5-methoxy-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-5-phenyl-3-(3-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



RN 133807-12-2 HCAPLUS

CN Benzothiazolium, 5-methoxy-2-[2-methyl-3-[5-phenyl-3-(2-sulfopropyl)-

2(3H)-benzothiazolylidene]-1-propenyl]-3-(2-sulfopropyl)-, inner  
salt (9CI) (CA INDEX NAME)

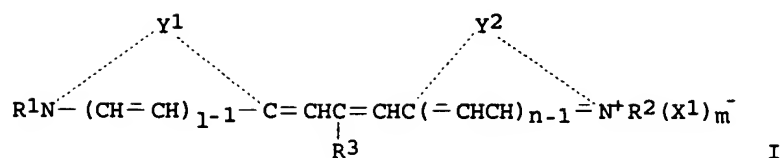


IC ICM G03C001-06  
ICS G03C001-18; G03C001-34; G03C005-29  
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)  
ST **silver halide** photog material; sensitizing dye  
benzothiazolium photog; **benzotriazole** deriv photog  
material; mercaptoalkylamino compd photog material  
IT Photographic films  
(high-sensitivity, contg. benzothiazolium derivs.,  
**hydrazine** compds., and **benzotriazole** derivs.)  
IT 23568-98-1 42215-42-9 133807-12-2  
RL: USES (Uses)  
(photog. sensitizing dye)

L21 ANSWER 13 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1990:641395 HCAPLUS  
DOCUMENT NUMBER: 113:241395  
TITLE: **Silver halide** photographic  
materials containing **hydrazines** and  
cyanine **dye** spectral sensitizers for  
photomechanical printing plate and a method for  
image formation  
INVENTOR(S): Yoshida, Tetsuo  
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02125248	A2	19900514	JP 1988-278588	198811 04
PRIORITY APPLN. INFO.:			JP 1988-278588	198811 04

GI



AB Photog. materials comprise on a support at least one photosensitive, chem. sensitized silver halide emulsion layer, wherein the above emulsion layer or other hydrophilic colloidal layer contain hydrazine derivs. R1NA1NA2G1R2 (A1 = A2 = H or one of A1, A2 = H, and the other = sulfinic acid residue, acyl; R1 = aliph. or arom. group, heterocyclyl; R2 = H, alkyl, aryl, alkoxy, aryloxy, alkoxycarbonyl, aryloxycarbonyl, COWH2, NH2; G1 = CO, SO2, NHCH2, etc.) and cyanine dyes [I; Y1, Y2 = atoms to complete (un)substituted benzothiazole, benzoselenazole, naphthothiazole, naphthoselenazole, or quinoline; R1, R2 = alkyl, sulfo- or carboxyalkyl; R3 = alkyl; X1 = anion; e, n = 1, 2; m = 0, 1]. The image formation of the above photog. materials involves processing with a developer at ≤11.0. Addn. of I achieves high sensitization without increase in photog. fog and the above photog. materials are suitable for a scanner application in photomech. printing plate using a light emission diode.

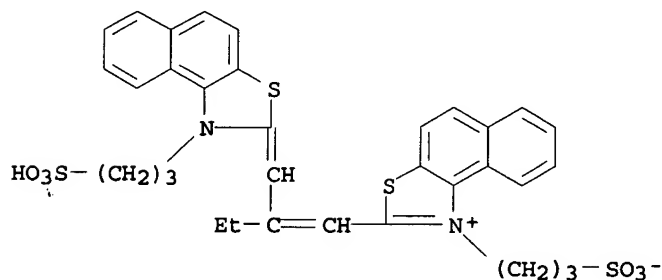
IT 4622-66-6 23568-98-1

RL: USES (Uses)

(cyanine dye, photog. emulsion spectrally sensitized by, for photomech. plate making)

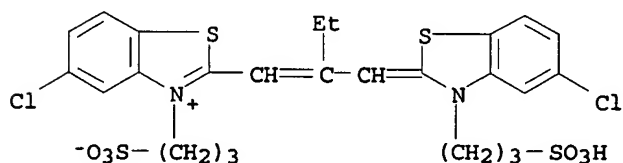
RN 4622-66-6 HCAPLUS

CN Naphtho[1,2-d]thiazolium, 1-(3-sulfopropyl)-2-[2-[[1-(3-sulfopropyl)naphtho[1,2-d]thiazol-2(1H)-ylidene]methyl]-1-butenyl]-, inner salt (9CI) (CA INDEX NAME)



RN 23568-98-1 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzothiazolyliidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



IC ICM G03C001-14

ICS G03C001-06

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic

and Other Reprographic Processes)  
 ST light emission diode photog material; silver  
 halide photog material; hydrazine deriv additive  
 photog material; photomech printing plate photog material; cyanine  
 dye spectral sensitizer  
 IT Photographic emulsions  
 (contg. hydrazine derivs., cyanine dye  
 spectrally sensitized, for photomech. plate making)  
 IT Photographic sensitizers  
 (cyanine dyes, photog. material for photomech. plate  
 making contg.)  
 IT Printing plates  
 (photog. emulsion contg. hydrazine derivs. and cyanine  
 dye spectral sensitizer for, light emission  
 diode scanner in)  
 IT 4622-66-6 23568-98-1  
 RL: USES (Uses)  
 (cyanine dye, photog. emulsion spectrally sensitized  
 by, for photomech. plate making)  
 IT 79147-81-2 86551-61-3 114750-35-5  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (photog. emulsion contg., for photomech. plate making)

L21 ANSWER 14 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1989:202682 HCAPLUS

DOCUMENT NUMBER: 110:202682

TITLE: High-contrast negative-working silver  
 halide photographic material  
 desensitized over 450-600 nm

INVENTOR(S): Kato, Kazunobu; Takagi, Yoshihiro; Miyata,  
 Junji; Shirasu, Kazuhiro; Ukai, Toshinao;  
 Adachi, Keiichi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 63158538	A2	19880701	JP 1986-307057	198612 23
PRIORITY APPLN. INFO.: JP 1986-307057				198612 23

AB The Ag halide emulsion layers or other hydrophilic colloidal layers  
 on a support contain an org. desensitizing agent and a spectral  
 sensitizing dye to decrease the sensitivity over  
 .apprx.450-600 nm by  $\leq 1/2$  from the inherent sensitivity.  
 This high-contrast photog. material contg. a hydrazine  
 deriv. is used as a lith film, and has high stability as a room-  
 light film.

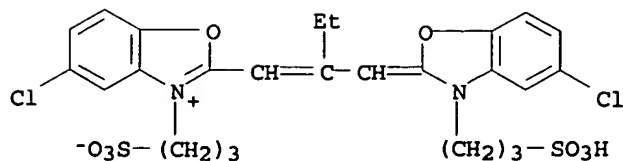
IT 18360-25-3 120380-93-0

RL: USES (Uses)

(spectral sensitizing agent, high-contrast neg.-working lith film  
 contg.)

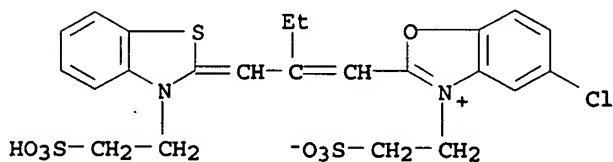
RN 18360-25-3 HCAPLUS

CN Benzoxazolium, 5-chloro-2-[2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-  
 benzoxazolyliidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt,  
 sodium salt (9CI) (CA INDEX NAME)



● Na

RN 120380-93-0 HCAPLUS  
 CN Benzoxazolium, 5-chloro-3-(2-sulfoethyl)-2-[2-[[3-(2-sulfoethyl)-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-, inner salt, potassium salt (9CI) (CA INDEX NAME)



● K

IC ICM G03C001-10  
 ICS G03C001-06; G03C001-36  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST neg lith photog film; org desensitizing agent photog film; spectral sensitizer dye photog film; room light lith film  
 IT Photographic sensitizers  
 (spectral, dye, high-contrast neg.-working lith films)  
 IT 19919-16-5 115878-00-7 115878-01-8 115878-02-9 115878-03-0  
 115878-04-1 115878-05-2  
 RL: USES (Uses)  
 (desensitizing agent, high-contrast neg.-working lith film contg.)  
 IT 86551-61-3 87947-04-4 95392-18-0 105754-54-9 114936-41-3  
 115626-09-0 120381-01-3 120381-02-4  
 RL: USES (Uses)  
 (high-contrast neg.-working lith film contg.)  
 IT 18360-25-3 27268-31-1 94266-09-8 110979-42-5  
 120380-91-8 120380-92-9 120380-93-0 120380-94-1  
 120380-95-2 120380-96-3 120380-97-4 120380-98-5 120380-99-6  
 120381-00-2  
 RL: USES (Uses)  
 (spectral sensitizing agent, high-contrast neg.-working lith film contg.)

L21 ANSWER 15 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1988:414805 HCAPLUS

DOCUMENT NUMBER: 109:14805

TITLE: Silver halide photographic material and developer and fixing bath for high-contrast images suitable for platemaking  
 INVENTOR(S): Inoue, Nobuaki; Hayashi, Katsumi; Hirano, Mitsunori

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

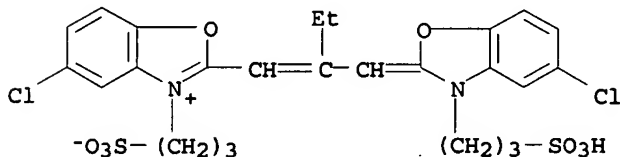
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62235947	A2	19871016	JP 1986-79533	19860407
PRIORITY APPLN. INFO.:				19860407

AB The photog. material is given the following features and developed and processed with the following solns. after imagewise exposure to give high contrast images with reduced residual image d. suitable for platemaking. It contains  $\geq 1$  cyanine dye photog. sensitizer and a hydrazine deriv. The exposed photog. material is developed in a developing soln. having pH 10.5-12.3 and contg. SO<sub>3</sub><sup>2-</sup> >0.25 M and then processed in a fixing soln. having pH >4.4 and contg. an acidic photog. hardening agent such as Al alum.

IT 18360-25-3  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (photog. sensitizer, silver halide photog. material contg. hydrazine deriv. and, for improved sensitivity and high-contrast images)

RN 18360-25-3 HCAPLUS

CN Benzoxazolium, 5-chloro-2-[2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

IC ICM G03C005-38

ICS G03C001-06

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 18360-25-3 114891-30-4

RL: TEM (Technical or engineered material use); USES (Uses)  
 (photog. sensitizer, silver halide photog. material contg. hydrazine deriv. and, for improved sensitivity and high-contrast images)

L21 ANSWER 16 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1985:140712 HCAPLUS

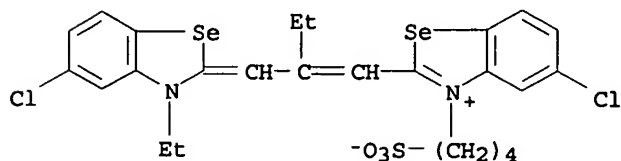
DOCUMENT NUMBER: 102:140712

TITLE: Color reversal photographic light-sensitive material

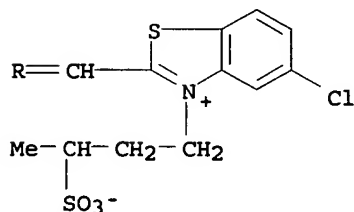
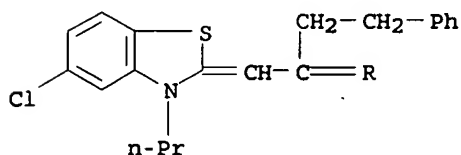
INVENTOR(S): Shuto, Sadanobu; Hayashi, Yasuhiro; Fujita,



RN 94143-50-7 HCAPLUS  
 CN Benzoselenazolium, 5-chloro-2-[2-[(5-chloro-3-ethyl-2(3H)-benzoselenazolylidene)methyl]-1-butenyl]-3-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



RN 95517-27-4 HCAPLUS  
 CN Benzothiazolium, 5-chloro-2-[2-[(5-chloro-3-propyl-2(3H)-benzothiazolylidene)methyl]-4-phenyl-1-butenyl]-3-(3-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



IC G03C007-26; G03C005-50  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT Photographic films  
 (color, reversal, contg. **silver halide** grains with internal fog centers, for improved adaptability to push processing)  
 IT 99-11-6 107-15-3, uses and miscellaneous 333-20-0 497-19-8, uses and miscellaneous 1310-73-2, uses and miscellaneous 7601-54-9 7681-11-0, uses and miscellaneous 7757-83-7 7758-02-3, uses and miscellaneous 13047-13-7 14986-84-6 17438-29-8 51956-71-9  
 RL: **USES (Uses)**  
 (photog. color developer compn. contg., for push processing of reversal material)  
 IT 6264-40-0 95153-73-4 95496-12-1  
 RL: **USES (Uses)**  
 (photog. color reversal material contg. **silver halide** grains with internal fog centers and, for improved adaptability to push processing)  
 IT 86-93-1 16407-55-9 18426-55-6 94143-50-7 95153-75-6 95517-27-4  
 RL: **USES (Uses)**  
 (photog. color reversal multilayer material with emulsion layer contg. **silver halide** grains with internal fog centers and, for improved adaptability to push processing)



IT 64-02-8 64-19-7, uses and miscellaneous 96-27-5 21265-50-9  
 RL: **USES (Uses)**  
 (photog. push processing soln. contg., for color reversal material)

L21 ANSWER 17 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1985:53863 HCAPLUS  
 DOCUMENT NUMBER: 102:53863  
 TITLE: Application of activated arylhydrazides to silver halide photography  
 INVENTOR(S): Hess, Thomas C.; Wiegers, Karl E.  
 PATENT ASSIGNEE(S): Eastman Kodak Co., USA  
 SOURCE: U.S., 23 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4478928	A	19841023	US 1983-493480	19830511
CA 1269877	A1	19900605	CA 1984-449601	19840314
JP 59212828	A2	19841201	JP 1984-91947	19840510
EP 130856	A2	19850109	EP 1984-400959	19840511
EP 130856	A3	19850814		
EP 130856	B1	19870729		
R: BE, DE, FR, GB, NL				
PRIORITY APPLN. INFO.:			US 1983-493480	A 19830511

OTHER SOURCE(S): MARPAT 102:53863

AB The sulfinic acid radical substituted arylhydrazides are incorporated into photog. elements. In neg. working surface latent image emulsions these compds. permit higher speed or contrast to be achieved, whereas in direct pos. internal latent image forming emulsions they increase nucleation activity and reduce reversal. Thus, a coarse grain S-Au sensitized Ag(Br,I) radiog. emulsion was mixed with 2-methyl-2,4-pentanediol, gelatin, saponin, 4-hydroxy-6-methyl-1,3,3a,7-tetraazaindene, anhydro-5-chloro-9-ethyl-5'-phenyl-3'-(sulfobutyl-3-sulfopropyl)oxacarbocyanine hydroxide Na salt, 1-formyl-2-(4-methylphenylsulfonyl)-2-[4-(3-methyl-2-thioureido)phenyl]hydrazine at  $0.38 \pm 10^{-6}$  mol/mol Ag and coated on a transparent support at 4.3 g Ag/m<sup>2</sup> and 4.8 g gelatin m<sup>2</sup>. The dry coating was exposed for 1/50 s to simulated blue screen light and processed 3 min in an Elon developer at 20° to give an image with relative speed (measured at 0.3 above Dmin) and Dmin of 118 and 0.08, resp., vs. 100 and 0.06 for a hydrazine-free control.

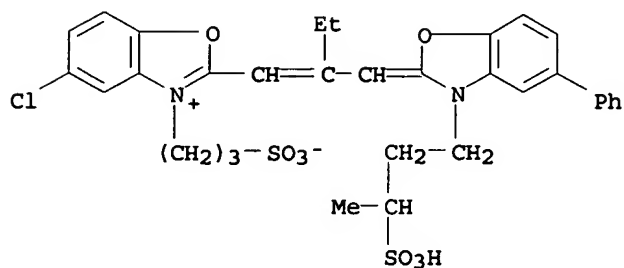
IT 28118-05-0 65767-18-2

RL: **USES (Uses)**  
 (photog. emulsion sensitized by, sulfinic acid radical substituted arylhydrazine derivs. for)

RN 28118-05-0 HCAPLUS

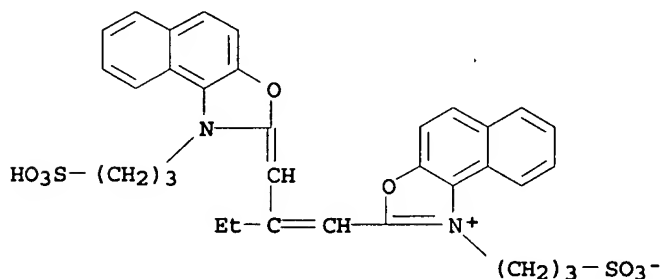
CN Benzoxazolium, 5-chloro-2-[2-[[5-phenyl-3-(3-sulfobutyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt,

sodium salt (9CI) (CA INDEX NAME)



● Na

RN 65767-18-2 HCAPLUS  
 CN Naphth[1,2-d]oxazolium, 1-(3-sulfopropyl)-2-[2-[[1-(3-sulfopropyl)naphth[1,2-d]oxazol-2(1H)-ylidene]methyl]-1-butenyl]-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

IC G03C001-28; G03C001-36  
 INCL 430217000  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT Photographic emulsions  
 (direct-pos., internal latent image forming, sulfinic acid radical substituted **arylhydrazines** for, for increased nucleation activity and reduced rereversal)  
 IT Photographic emulsions  
 (neg.-working, surface latent imaging forming, sulfinic acid radical substituted **arylhydrazines** for, for improved speed and contrast)  
 IT 6632-39-9  
 RL: **USES (Uses)**  
 (hydrogenation and reaction with sodium toluenesulfinate)  
 IT 94422-04-5 94422-05-6 94422-06-7 94422-07-8 94422-08-9  
 94422-09-0 94422-10-3 94422-11-4 94422-12-5 94422-13-6  
 94422-14-7 94422-15-8  
 RL: TEM (Technical or engineered material use); **USES (Uses)**  
 (photog. emulsion contg., for improved characteristics)  
 IT 107-41-5 2503-56-2  
 RL: TEM (Technical or engineered material use); **USES (Uses)**  
 (photog. emulsion contg., sulfinic acid radical substituted

arylhydrazides for, for improved characteristics)  
 IT 28118-05-0 65767-18-2  
 RL: USES (Uses)  
 (photog. emulsion sensitized by, sulfinic acid radical  
 substituted arylhydrazine derivs. for)  
 IT 1005-56-7 6160-65-2 40567-16-6  
 RL: USES (Uses)  
 (reaction with (aminophenyl)formyl(methylphenylsulfonyl)  
 hydrazine)  
 IT 824-79-3  
 RL: USES (Uses)  
 (reaction with hydrogenated formyl(nitrophenyl)hydrazine  
 )

L21 ANSWER 18 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1984:601366 HCAPLUS

DOCUMENT NUMBER: 101:201366

TITLE: Silver halide color

photographic light-sensitive material

INVENTOR(S): Kobayashi, Hidetoshi; Mihayashi, Keiji; Itoh, Isamu

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd. , Japan

SOURCE: Eur. Pat. Appl., 86 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 117511	A2	19840905	EP 1984-101802	19840221
EP 117511	A3	19861230		
EP 117511	B1	19890920		
R: DE, GB				
JP 59170840	A2	19840927	JP 1983-31611	19830225
JP 04073574	B4	19921124		
US 4628024	A	19861209	US 1986-817239	19860109
PRIORITY APPLN. INFO.:			JP 1983-31611	A
				19830225
			US 1984-583901	A1
				19840227

OTHER SOURCE(S): CASREACT 101:201366; MARPAT 101:201366

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Photog. material characterized by improved sensitivity, graininess, high contrast, storage stability and capable of being rapidly processed contains a coupler capable of imagewise release of a fogging agent. Thus, a yellow coupler I and compd. II 0.5 mol.% were dissolved in a mixt. of tricresyl phosphate and EtOAc,

emulsified into an aq. gelatin soln. and added to a photog. emulsion. The obtained compn. was coated on a subbed cellulose triacetate support at coating wts. Ag(Br,I) emulsion (particle size 0.7  $\mu$ ) as Ag  $8.2 \times 10^{-3}$ , I  $8.2 \times 10^{-4}$  mol/m<sup>2</sup>, tricresyl phosphate 0.4, gelatin 1.6 g/m<sup>2</sup>, and overcoated with a layer contg. gelatin 1.3 and a hardener III 0.05 g/m<sup>2</sup>. The element was stored 28 days at 40° and 40% relative humidity, imagewise exposed, processed at 38°, to give an image with fog,  $\gamma$  and relative sensitivity 0.09, 1.6 and 144 resp. vs. 0.08, 1.31 and 95, resp., for a II-free control.

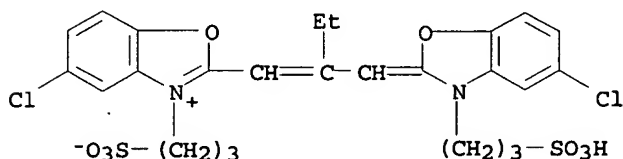
IT 18360-25-3 23216-66-2 23216-67-3

RL: **USES (Uses)**

(photog. color element contg., dye couplers capable of imagewise release of fogging agent for)

RN 18360-25-3 HCAPLUS

CN Benzoxazolium, 5-chloro-2-[2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

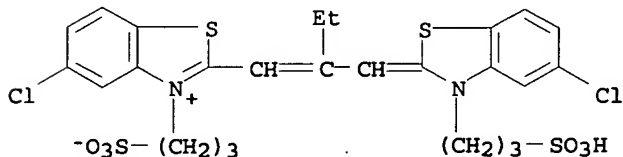
RN 23216-66-2 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt, compd. with pyridine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 23568-98-1

CMF C25 H26 Cl2 N2 O6 S4



CM 2

CRN 110-86-1

CMF C5 H5 N



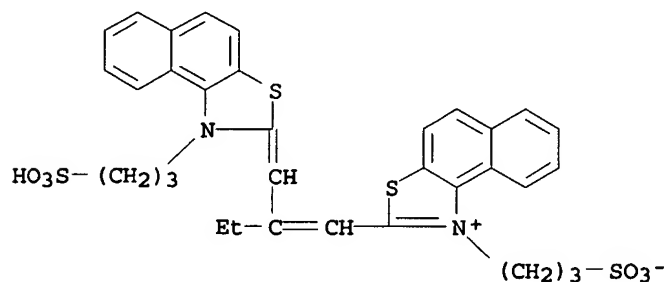
RN 23216-67-3 HCAPLUS

CN Naphtho[1,2-d]thiazolium, 1-(3-sulfopropyl)-2-[2-[[1-(3-sulfopropyl)naphtho[1,2-d]thiazol-2(1H)-ylidene]methyl]-1-butenyl]-, inner salt, compd. with N,N-diethylethanamine (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 4622-66-6

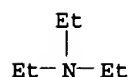
CMF C33 H32 N2 O6 S4



CM 2

CRN 121-44-8

CMF C6 H15 N



IC G03C007-32; C07D257-04; C07D403-08

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 2736-18-7 70950-45-7

RL: USES (Uses)

(photog. color element contg., color couplers capable of imagewise release of fogging agents for)

IT 497-19-8, uses and miscellaneous 5064-31-3 7757-83-7

18360-25-3 23216-66-2 23216-67-3

31598-52-4 34329-97-0 63320-47-8 76379-53-8 76379-54-9

90936-93-9 92933-77-2 92974-52-2 93030-91-2

RL: USES (Uses)

(photog. color element contg., dye couplers capable of imagewise release of fogging agent for)

IT 92974-51-1

RL: USES (Uses)

(photog. coupler releasing fogging agent, color photog. element contg.)

IT 63402-26-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction of, in prepn. of photog. dye coupler releasing fogging agent)

IT 92974-60-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction with formyl(aminophenol)hydrazine, in prepn. of photog. dye coupler releasing fogging agent)

IT 92974-56-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);  
 RACT (Reactant or reagent)  
 (prepn. and reaction with formyl(aminophenyl)hydrazine)  
 IT 92974-55-5P 92974-57-7P 92974-58-8P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);  
 RACT (Reactant or reagent)  
 (prepn. and reaction with formyl(aminophenyl)hydrazine,  
 in prepn. of photog. dye coupler releasing fogging  
 agent)  
 IT 88-11-9  
 RL: USES (Uses)  
 (reaction with Et aminobenzoate)  
 IT 619-05-6  
 RL: USES (Uses)  
 (reaction with carbon disulfide and triethylamine)  
 IT 92974-54-4  
 RL: USES (Uses)  
 (reaction with carboxyphenylmercaptotetrazole derivs.)  
 IT 150-13-0 582-33-2  
 RL: USES (Uses)  
 (reaction with diethylthiocarbamoyl chloride)  
 IT 39163-92-3  
 RL: USES (Uses)  
 (reaction with sulfonyl chloride)

L21 ANSWER 19 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1983:531300 HCAPLUS  
 DOCUMENT NUMBER: 99:131300  
 TITLE: Direct-positive core-shell emulsions and  
 photographic elements and their use  
 INVENTOR(S): Hoyen, Harry A.  
 PATENT ASSIGNEE(S): Eastman Kodak Co., USA  
 SOURCE: U.S., 23 pp.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4395478	A	19830726	US 1981-320902	198111 12
CA 1175696	A1	19841009	CA 1982-415367	198211 10
PRIORITY APPLN. INFO.:			US 1981-320902	A 198111 12

AB A photog. emulsion for direct pos. process consists of core-shell Ag halide particles contg. in the shell part a polyvalent metal ion to reduce reversal. Thus, a 0.41  $\mu$  AgCl emulsion was prepd. by the double-jet pptn. technique, sensitized with Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>·5H<sub>2</sub>O 1.2 mg/mol Ag and KAuC1<sub>4</sub> 1.8 mg/mol Ag for 30 min at 70°, mixed with CdCl<sub>2</sub> 4 mg/mol Ag, further pptd. with AgCl to give a 0.59  $\mu$  core-shell AgCl emulsion which after being sensitized with Au<sub>2</sub>S 2mg/mol Ag and mixed with a cyan coupler was coated on a polyester support at 1.07 g Ag/m<sup>2</sup> and 2.15 g gelatin/m<sup>2</sup>. The film was overcoated with a gelatin layer, imagewise exposed (1500 W, 3000°K W lamp) for 2 min, and developed in a p-phenylenediamine developer contg. benzotriazole and formyl-4-methylphenylhydrazine. The element showed D<sub>max</sub> 3.62, D<sub>min</sub> 0.08 and AlogE (between

reversal image and the surfaced neg. image) 1.05 vs. 3.58, 0.34 and 0.53, resp., for a CdCl<sub>2</sub>-free control.

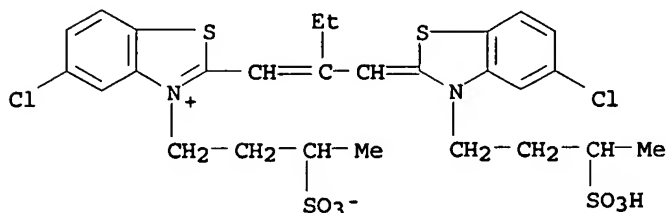
IT 25746-36-5

RL: USES (Uses)

(photog. emulsion for direct-pos. process contg.)

RN 25746-36-5 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[[5-chloro-3-(3-sulfobutyl)-2(3H)-benzothiazolylidene]methyl]-1-butenyl]-3-(3-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



IC G03C001-34

INCL 430217000

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 75-44-5

RL: USES (Uses)

(in prepn. of silver halide core-shell type emulsion for direct-pos. photog.)

IT 50-81-7, uses and miscellaneous 123-31-9, uses and miscellaneous

1936-57-8 7681-11-0, uses and miscellaneous 7757-83-7

7758-02-3, uses and miscellaneous 13709-94-9 66566-47-0

RL: USES (Uses)

(photog. developer contg., for direct-pos. silver halide emulsions)

IT 14280-50-3, uses and miscellaneous 22537-48-0, uses and

miscellaneous 22555-00-6, uses and miscellaneous

RL: USES (Uses)

(photog. emulsion contg. core-shell silver halide particles with shell part contg., for direct-pos. process)

IT 13682-61-6 25746-36-5 30695-60-4 63134-32-7

RL: USES (Uses)

(photog. emulsion for direct-pos. process contg.)

L21 ANSWER 20 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1983:461691 HCAPLUS

DOCUMENT NUMBER: 99:61691

TITLE: High-contrast photographic emulsions containing a phenylhydrazine derivative

INVENTOR(S): Simson, Joseph M.; Jordan, Harold E.

PATENT ASSIGNEE(S): Eastman Kodak Co., USA

SOURCE: Can., 47 pp.

CODEN: CAXXA4

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 1146001	A1	19830510	CA 1978-317278	19781204

US 4650746

A

19870317

US 1979-57042

197907  
12

PRIORITY APPLN. INFO.:

US 1978-944940

A

197809  
22

AB A photog. neg.-working Ag halide emulsion exhibiting very high contrast and speed contains a **hydrazine** compd. RNHNHCOH (R = Ph nucleus having Hammett  $\sigma$  value  $< +0.3$ ). Thus, a polyester support was coated with a 0.4  $\mu$  cubic AgBr emulsion (at 4.3 g/m<sup>2</sup> Ag and 4.79 g/m<sup>2</sup> gelatin) contg. 1-formyl-2-(4-methoxyphenyl)**hydrazine** 10-2 mol/mol Ag and sensitizer 3-carboxymethyl-5-[(3-methyl-2-thiazolidinylidene)-1-methylethylidene]rhodamine 100 mg/mol Ag, imagewise exposed to a 500 W 3000°K W lamp and processed in a compn. contg. Na<sub>2</sub>SO<sub>3</sub> 75 and 5-methylbenzotriazole 0.8 g/L (pH = 11.5) to give an image with speed 324, contrast 12.1 and Dmin 0.3 vs. 100, 7.5 and 0.03, resp., for a **hydrazine** compd.-free control.

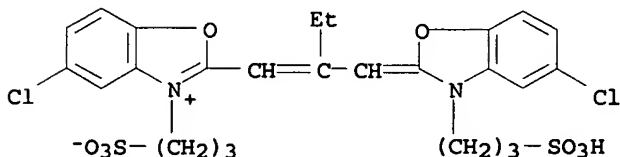
IT 18360-25-3

RL: USES (Uses)

(latex, photog. neg.-working **silver halide** emulsion contg.)

RN 18360-25-3 HCAPLUS

CN Benzoxazolium, 5-chloro-2-[2-[[5-chloro-3-(3-sulfopropyl)-2(3H)-benzoxazolylidene]methyl]-1-butenyl]-3-(3-sulfopropyl)-, inner salt, sodium salt (9CI) (CA INDEX NAME)



● Na

IC G03C001-34

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **hydrazine** deriv photog neg emulsion; phenyl

**hydrazine** lith photog emulsion

IT Photographic emulsions

(lith, contg. **phenylhydrazine** deriv.)

IT Photographic emulsions

(neg.-working, contg. **phenylhydrazine** deriv.)

IT 18360-25-3 27082-76-4 64112-62-5

RL: USES (Uses)

(latex, photog. neg.-working **silver halide** emulsion contg.)

IT 123-31-9, uses and miscellaneous 136-85-6 144-55-8, uses and miscellaneous 1310-58-3, uses and miscellaneous 2654-58-2 7379-28-4 7647-15-6, uses and miscellaneous 7757-83-7 25322-68-3

RL: USES (Uses)

(photog. developer compn. contg., for neg.-working **silver halide** emulsion contg. **hydrazine** deriv.)

IT 2503-56-2

RL: USES (Uses)

(photog. neg.-working **silver halide** emulsion contg.)



IT 622-84-4 13116-28-4 14578-57-5 35020-01-0 38577-24-1  
86551-61-3 86551-62-4

RL: USES (Uses)  
(photog. neg.-working **silver halide** emulsion  
contg., increased contrast and speed of)

IT 7772-98-7 25651-76-7

RL: USES (Uses)  
(photog. neg.-working **silver halide** emulsion  
sensitized by)

L21 ANSWER 21 OF 21 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1973:437114 HCAPLUS

DOCUMENT NUMBER: 79:37114

TITLE: Direct positive processes utilizing  
**silver halide** surface image  
emulsions containing desensitizers

INVENTOR(S): Gilman, Paul Brewster, Jr.; Raleigh, Ronald  
George; Koszelak, Thaddeus Donald

PATENT ASSIGNEE(S): Eastman Kodak Co.

SOURCE: U.S., 8 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
US 3730723	A	19730501	US 1971-154224	197106 17
BE 784945	A1	19721002	BE 1972-118754	197206 15
FR 2141939	A1	19730126	FR 1972-21536	197206 15
DE 2229454	A1	19730104	DE 1972-2229454	197206 16
GB 1393400	A	19750507	GB 1972-28606	197206 19
PRIORITY APPLN. INFO.:			US 1971-154224	A 197106 17

AB An unfogged Ag halide surface image emulsion contg. an electron acceptor and (or) desensitizing concns. of a spectral sensitizing **dye** and chem. surface sensitized to a level below that which would produce a d. of 0.1 when exposed and developed in Kodak DK-50 Developer is used to obtain a direct pos. image by development in a Ag halide developer in the presence of a **hydrazine** fogging agent or by exposure to a **light** flash during development in a Ag halide developer. Thus, a S- and Au-sensitized 0.2  $\mu$  cubic grain monodisperse Ag(Br,I) emulsion contg. per mole of Ag 800 mg of 5,5'-dichloro-3,3'-triethylthiacarbocyanine bromide was coated on a film support at 400 mg Ag/ft<sup>2</sup>, exposed on an Eastman 1B sensitometer, and developed in the fogging developer contg. hydroquinone 10, Elon 5, Na<sub>2</sub>SO<sub>3</sub> 75, NaOH 10.5, 5-methylbenzotriazole 0.02, p-[ $\beta$ -(methylsulfonamido)ethyl] **phenylhydrazine-HCl** 2.0, diglycolic acid 13.4, Na<sub>3</sub>PO<sub>4</sub> 75 g, and H<sub>2</sub>O to 1 l. to give a high-speed direct pos image.

IT 1742-90-1 14637-08-2 18426-55-6

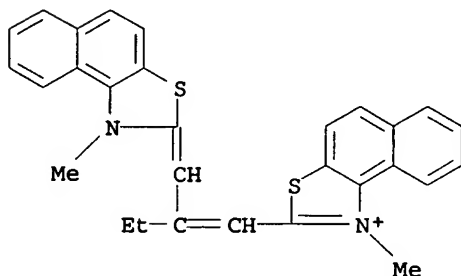
18426-56-7 42381-23-7

RL: **USES (Uses)**

(photog. direct-pos. emulsions contg.)

RN 1742-90-1 HCAPLUS

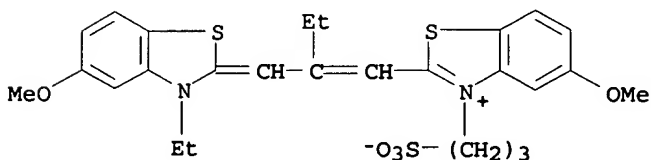
CN Naphtho[1,2-d]thiazolium, 1-methyl-2-[2-[(1-methylnaphtho[1,2-d]thiazol-2(1H)-ylidene)methyl]-1-butenyl]-, chloride (9CI) (CA INDEX NAME)



● Cl<sup>-</sup>

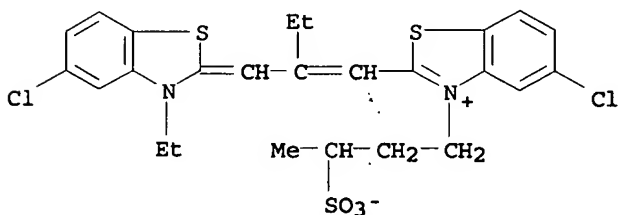
RN 14637-08-2 HCAPLUS

CN Benzothiazolium, 2-[2-[(3-ethyl-5-methoxy-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-5-methoxy-3-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



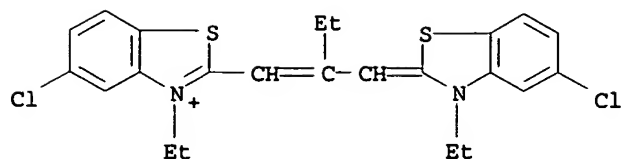
RN 18426-55-6 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[(5-chloro-3-ethyl-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-3-(3-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



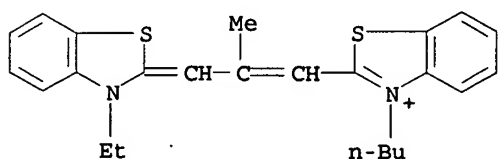
RN 18426-56-7 HCAPLUS

CN Benzothiazolium, 5-chloro-2-[2-[(5-chloro-3-ethyl-2(3H)-benzothiazolylidene)methyl]-1-butenyl]-3-ethyl-, bromide (9CI) (CA INDEX NAME)



● Br<sup>-</sup>

RN 42381-23-7 HCAPLUS  
 CN Benzothiazolium, 2-[3-(3-ethyl-2(3H)-benzothiazolylidene)-2-methyl-1-propenyl]-3-(sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



D1-SO<sub>3</sub><sup>-</sup>

IC G03C  
 INCL 096064000  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
 ST direct pos emulsion development; surface direct pos emulsion; silver halide direct pos emulsion  
 IT Photographic emulsions  
 (direct-pos., contg. polymethine dyes)  
 IT 1742-90-1 14637-08-2 18426-55-6  
 18426-56-7 24704-55-0 42381-23-7  
 RL: USES (Uses)  
 (photog. direct-pos. emulsions contg.)  
 IT 30912-23-3 42381-27-1  
 RL: USES (Uses)  
 (photog. fogging agent, for direct-pos. image developers)

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